

Managing Asthma in Connecticut Schools



A Resource Manual

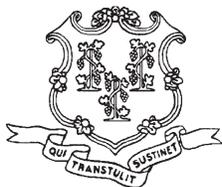


CONNECTICUT DEPARTMENT OF
PUBLIC HEALTH

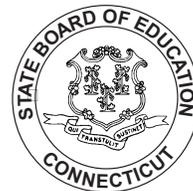
Produced by the Connecticut Department of Public Health in collaboration
with the State of Connecticut Department of Education and the United Way
of Connecticut/Infoline.

Keeping Connecticut Healthy
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STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH



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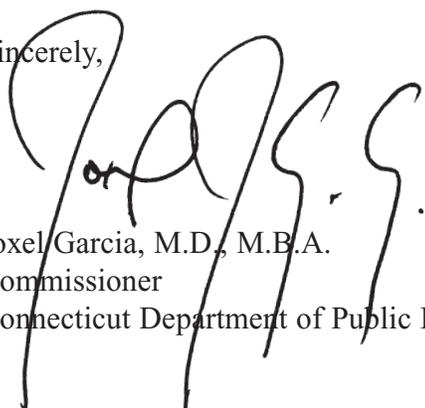
Dear Colleague:

In a classroom of 30, two or more children are likely to have asthma. As the most common chronic disease among children and a leading cause of school absenteeism due to illness, asthma is a significant and important issue for schools. By providing you with this resource manual, developed by the CT Department of Public Health in collaboration with the State Department of Education and other organizations, we are encouraging you to support asthma management within your school. It has been designed to be a quick reference and guide that can be integrated into the current school activities by each segment of the school population to assist in the management of children with asthma.

Children spend a significant part of their day in school; therefore, school personnel and the school environment play an important role in ensuring effective asthma management for children. Asthma that is not well managed can result in school absences, disruptions in the classroom, reduced participation in school activities and medical emergencies, all of which can contribute to poor academic performance.

Effective management of asthma at school is critical for the well being of children with this disease. We thank you for your efforts to ensure that children with asthma can lead active lives, participate fully and thrive academically.

Sincerely,



Joxel Garcia, M.D., M.B.A.
Commissioner
Connecticut Department of Public Health



Theodore S. Sergi
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Acknowledgements

The State of Connecticut Department of Public Health, Bureau of Community Health would like to acknowledge the many individuals and agencies who gave their time and shared resources in order to make this manual as complete and relevant as possible.

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Foreword

This manual has been prepared as a guide for all school staff who are key players in promoting student health and health services in the school. Administrators, teachers, nurses, coaches, and custodial staff are part of one team who work together to promote the health of students and staff and to create a healthy school environment. The manual is divided into specific sections for targeted audiences to provide them with the information they need to understand, manage, and control asthma in the school. The information is presented in a simple yet comprehensive manner. Included within the manual are references and resources for further information, as well as handouts that can be reproduced and distributed to colleagues and parents.

In order to effectively address health concerns in the school environment, there must be collaboration among all staff, students, and parents. The Coordinated School Health Program (CSHP) model is an excellent example of collaboration at many levels to improve health and education outcomes for children. Such collaboration includes government and non-government agencies, education and health professionals, students, their families, community volunteers, and businesses. This manual was developed with the CSHP model in mind.

Through the use of the CSHP model, schools and communities can work to identify gaps in services for school children, reduce duplication of services, and ensure collaboration is in place to meet the health care needs of students. The eight components in the CSHP model are: School Health Services, A Healthy School Environment, Physical Education, Comprehensive School Health Education, School Counseling/Psychological/Social Services, School Nutrition Services, School-Site Health Promotion for Staff, and Family and Community Involvement in the Schools.

Vision For the 21st Century
*Every child in America will live, learn, work, and play
in environments that do not cause or worsen asthma.*

The Eight Components of Coordinated School Health

A coordinated school health program represents a new way of working that requires interdisciplinary and interagency collaboration at every level to improve health and educational outcomes for children. Coordinated school health programs address the health needs of the whole child. Such collaboration includes government and non-government agencies and organizations, education and health professionals, students, their families, community volunteers, and businesses. The concept of school health programs has evolved over the past several decades from a focus on curricula to the eight-component model. Improved understanding of risk and resiliency factors and the tendency of young people experiencing risk behaviors to exhibit more than one such behavior makes it necessary to develop programs that are comprehensive, that is, affecting the underlying and long-lasting knowledge, attitudes, and behaviors of students. The eight components, as they relate to asthma, are reflected throughout the sections of this manual.

School Health Services

Definition: Designed to promote the health of students, identify and prevent health problems and injuries, and ensure care for students. Includes preventive services, education, emergency care, referral, and management of acute and chronic health conditions.

School health services staff are essential in the control and management of asthma. School nurses, along with school-based health centers, play a key role in identifying and managing students with asthma, and educating staff and students on asthma.

A Healthy School Environment

Definition: The physical, emotional, and social climate of the school. Designed to provide a safe physical plant as well as a healthy and supportive environment that fosters learning.

All school staff can contribute to creating a healthy school environment for students with asthma by identifying potential asthma triggers, and working together to minimize or eliminate them. These triggers include those found in the classroom and on school grounds. In addition, all school staff should create an environment in which children with chronic illnesses, including asthma, are made to feel comfortable and are not ostracized by their peers.

Physical Education

Definition: Instruction that promotes lifelong, safe physical activity. Designed to develop basic movement skills, sport skills, and physical fitness as well as to enhance social and emotional abilities.

Physical education teachers, coaches, and athletic directors should recognize that students with asthma can, and should, participate in physical activity. In coordinating these activities, they should be aware of students with asthma, and make modifications when necessary.

Comprehensive School Health Education

Definition: Classroom instruction that addresses physical, emotional, and social dimensions of health; that develops health knowledge, attitudes, and skills; and that is tailored to each age level. Designed to motivate and assist students to maintain and improve their health, prevent disease, and reduce health-related risk behaviors.

There are a number of curricula developed for school-aged children that staff may want to incorporate into their lesson plans to educate students about asthma. These curricula feature activities that focus on greater awareness and sensitivity towards students with asthma, identifying asthma triggers, signs and symptoms; and provide information on what to do in case of an asthma attack.

School Counseling, Psychological, and Social Services

Definition: Activities that focus on cognitive, emotional, behavioral, and social needs of individuals, groups, and families. Designed to prevent and address problems and facilitate learning and healthy behavior and development.

School counselors, along with school nurses and teachers, should provide support and encouragement for students with asthma and promote self-esteem. They can help minimize feelings of insecurity or embarrassment because of the student's condition.

School Nutrition Services

Definition: Integration of nutrition education, nutritious and appealing meals, and an environment that promotes healthy dietary behaviors for all children. Designed to maximize each child's education and health potential for a lifetime.

It is important for school staff to understand the link between asthma and food allergies, and to take the appropriate precautionary measures.

School-site Health Promotion for Staff

Definition: Assessment, education, and fitness activities for school faculty and staff. Designed to maintain and improve health and well-being of school staff who serve as role models for students.

By taking simple steps, such as promoting a smoke-free campus, sponsoring smoking cessation programs for staff, providing staff training on health-related topics, such as

asthma, and enacting policies regarding school air quality and pest control, school administrators can help to ensure the health of their staff with asthma.

Family and Community Involvement in Schools

Definition: Partnerships among schools, families, and community groups and individuals. Designed to share and maximize resources and expertise in addressing the healthy development of children, youth, and their families.

School staff, particularly the school nurse, can work closely with parents and the community to raise awareness of asthma and its effects on students. Community groups and health care providers can act as resources for schools and parents.

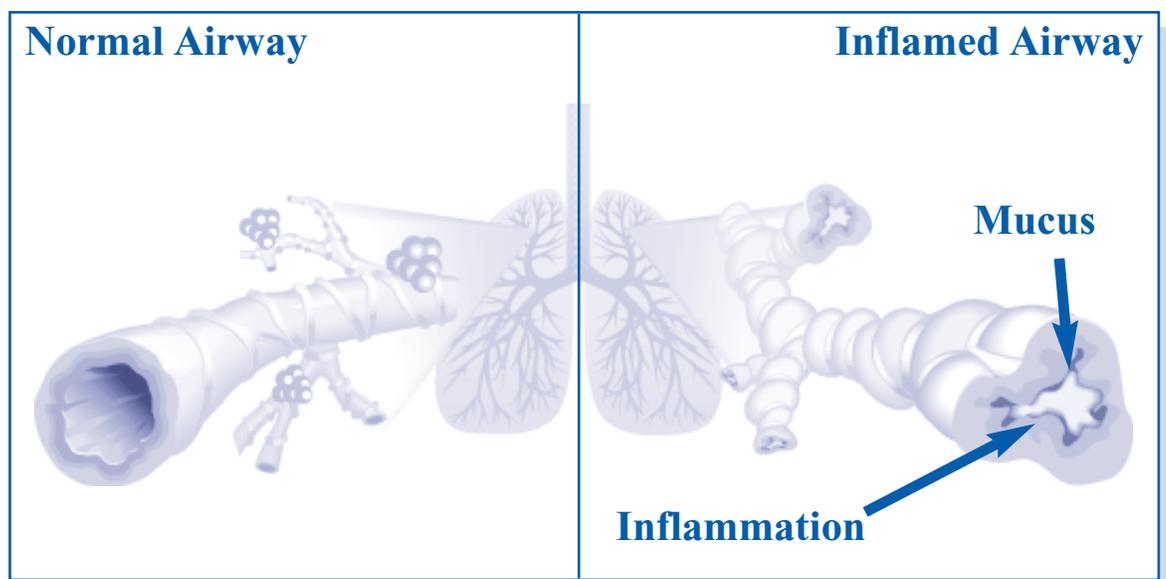
Source: Education Development Center, Inc.

Asthma Overview

Asthma is a chronic inflammatory disorder of the lungs. People who have asthma experience periods of breathlessness, wheezing, coughing and chest tightness; these periods are called attacks or episodes. Sometimes these attacks can be life threatening. The specific cause(s) of asthma are not known. However, people with asthma can lead normal, productive lives with effective asthma management and control of asthma symptoms. Asthma that is not controlled has a significant impact on the person with asthma, the family, caregivers and others. Asthma is the leading cause of missed days from school from chronic illness and can result in missed days of work, visits to the hospital, interrupted sleep, limited physical activity, and the disruption of family and caregiver routines.

Controlling asthma requires a comprehensive approach including: consistent and appropriate medical treatment; patient compliance with drug regimens; comprehensive patient and family education; and environmental risk factor evaluation and reduction. Asthma can be aggravated by environmental risk factors including: allergens from dust mites, cockroaches, and pets, molds, pollen, stress, and tobacco smoke. Viral infections and outdoor air pollution may also contribute to an asthma attack.

The incidence, severity, and mortality associated with asthma are increasing. Approximately 17 million people in the U.S. have asthma, and of these approximately 5 million are children. Asthma is the most common chronic disease of childhood and is responsible for a major proportion of pediatric admissions to emergency departments and hospitals.



What Schools Need To Know About Asthma

- Asthma, a lung disease, is the most common chronic illness among children.
- Childhood asthma is a leading cause of school absenteeism due to a chronic illness each year. This also results in time off from work for parents.
- During an asthma attack, the airways in the lungs become swollen and cause coughing, wheezing, chest tightness, and/or trouble breathing. This could happen when a student with asthma is exposed to things that may start asthma attacks such as chalk dust, animal dander, mold, cold air, cigarette smoke, strong scents, and/or pollen.
- There is no known cure for asthma, but there are ways to control asthma. If asthma is not controlled properly, and if it is not taken seriously, one can die of asthma.
- The incidence of childhood asthma has increased dramatically over the past two decades. In Connecticut, it is estimated that 12.6% of children ages 5 to 17 have asthma.
- Poor and minority children are more likely to have asthma and to have higher emergency room and hospitalization rates for their asthma.
- Research has demonstrated the value of asthma education in schools, showing that it helps to improve self-management of asthma, and also leads to decreased rates of absenteeism.

School Administration

Administration

School administrators are vital to ensuring that students and staff with asthma receive the support they need. By assuring that there is a registered nurse at school at all times, and establishing asthma policies, administrators can demonstrate their dedication to the health of their staff and students. In addition, by creating a healthy school environment, student achievement and educational outcomes can improve. Since both rely on having healthy students, administrators should consider incorporating the holistic Coordinated School Health Program model to address all the health needs of students in the school.

The following are key roles for administrators to follow to ensure that their school is “asthma-friendly.”

Establish and Support a School Asthma Policy

Work with the school board to establish policies which support students with asthma and staff. Examples of policies that would support students with asthma include: the implementation of a plan for medication administration in the absence of a school nurse or during emergencies and/or allowing students to self-administer their medication.

Promote a Healthy Work/School Environment

Make sure that the school buildings and grounds are smoke-free. Prohibit any environmental tobacco smoke on school

grounds, or at any school-related activities, such as sporting events, field trips, or dances. Environmental tobacco smoke is a common trigger of asthma. By taking a simple step like promoting a smoke-free campus, administrators help to minimize asthma triggers and protect students.

Ensure that the school is maintaining good indoor air quality (IAQ). Government research demonstrates that many schools have problems with poor air quality. Work with school staff, including custodians, to implement the EPA’s Tools for Schools Program. This program is designed to provide schools with the resources they need to manage air quality both effectively and inexpensively (see brochure at the end of this section).

Implement Integrated Pest Management (IPM) to reduce pests and toxic pesticides in the schools. IPM is based on preventing pests by decreasing the resources they need to survive. When pests become a problem, alternatives to pesticides are used to reduce the pest population. Administrators should collaborate with custodial staff to ensure that IPM is effectively implemented in the school.

Support Staff and Students with Asthma

Support asthma education programs for students and staff. Administrators should make sure that all school staff, including teachers, counselors, custodians, bus drivers, and coaches, are educated about asthma

signs and symptoms, and asthma management. It is also important to educate all students about asthma, so that students without asthma are aware of the condition and how to help fellow students with asthma. Administrators can also help by supporting a healthy environment and advocating for students with asthma.

Ensure that the School Is Providing Appropriate School Health Services

Ensure school nurse coverage at all times. It is also important to make sure that there is somebody who can administer medications when the school nurse is unavailable. Administrators should make sure that there is a plan in place to ensure that students with asthma have immediate access to medications as prescribed by their doctor.

Encourage use of an Asthma Action Plan for all students with asthma. The Asthma Action Plan is an individualized management plan developed by the primary care provider and the patient with his/her family. This Plan supports communication among the school nurse, parents, and the primary care provider.

Foster relationships between the school medical advisor and the school nurse. By working together, the school nurse and the medical advisor can establish the best system of care as well as a supportive school environment for students with asthma.

Foster Relationships with School-Based Health Centers (SBHC). By working together, the school nurse and SBHC can establish supportive and comprehensive health services for students.

Promote Collaboration with Parents, Community, and the PTO

Support the involvement of parents, community health care providers, and local asthma programs in asthma-related activities at school. Encourage the PTO to sponsor asthma-related information sessions, or training for parents.

Ensure that Students Are Provided with Opportunities for Appropriate Daily Physical Activity

Establish policies and procedures that promote participation in physical activity for all students with asthma. This should include access to medications before physical activity. In addition, all coaches and physical education teachers should be encouraged to communicate activity limitations to the school nurse and/or parents, as this may be an indication of poorly controlled asthma.

Use the *How Asthma-Friendly is Your School?* as a guide to assess how prepared your school is to offer a supportive environment for students with asthma. For a more detailed assessment of the school's asthma program, refer to the end of this section.

(Refer to the end of this section for additional information).

Tips for Administrators

- ✓ Evaluate your school's policies, procedures, activities around asthma.
- ✓ Prioritize areas of weakness and establish an action plan to address those needs.
- ✓ Develop an Indoor Air Quality (IAQ) management team using a program like *EPA's IAQ Tools for Schools* to evaluate the needs and issues in the school.
- ✓ Support and encourage education of staff and students on asthma and its signs and symptoms.

Pesticide Use In Schools

Public Law 99-165

- Definition of a pesticide excludes disinfectants, sanitizers and bait formulations.
- Requirement that pesticide applications be done by certified applicators.
- A registry to be created within each school of parents who wish to be notified when pesticides are applied at the school.
- Notice of this registry and the school's pesticide policy are to be provided at the beginning of the school year.
- For schools which have not adopted an IPM program, notice to parents on the registry shall be sent by first class mail to be received 24 hours before the application.
- No application shall be made during the school day or during planned activities except for emergency applications to control infestations that pose an immediate threat to health.
- When an emergency application is made, notification to parents on the registry shall be made by any means practicable, as soon as possible on or before the day of application.
- Records of application shall be kept at the school for 5 years.
- For schools with IPM programs, the provisions are similar, except that the notice to parents on the registry for non-emergency applications may be made by any means practicable on or before the day of application.
- For application to day care facilities, no pesticide may be applied during regular business hours, except for emergency applications.

Effective 7/1/00.

Medical Advisor

Section 10-205 of the Connecticut General Statutes requires local or regional school boards in towns having a population of 10,000 or more to appoint at least one legally qualified practitioner of medicine as school medical advisor. It is strongly advised by the Connecticut Advisory School Health Council that every town, including those with populations of less than 10,000, appoint a school medical advisor or join with other towns to fill this position.

Asthma and the School Medical Advisor

The school medical advisor is in a unique position to make a major contribution to efforts to better manage asthma within the schools. A school medical advisor can play a significant role in ensuring that the school is well prepared to support the needs of students with asthma through planning, policy, guidance, and medical consultation. The school medical advisor can also promote the adoption of a Coordinated School Health Program model.

The school medical advisor consults with the school concerning the school health program by:

- Working collaboratively with the school nurse to plan school health programs on asthma;
- Promoting any school health programs related to asthma with school administration and the board of education;
- Reviewing, evaluating and revising the school health asthma program with the school nursing supervisor/director on a monthly basis, and with school administrators on a regular basis during each school year;
- Participating in school health activities, such as the school health council or other appropriate committees;
- Consulting with the school nurse supervisor/director in the development of nursing protocols for the assessment and management of students with asthma;
- Providing consultation and, when appropriate, medical direction to the school nurse supervisor or director regarding in-school management of students with asthma;
- Providing standing orders for emergency asthma medications and medical treatments;
- Participating in establishing asthma screening and referral procedures for students;
- Consulting with planning and placement teams as needed when medical problems, such as asthma, interfere with education;

- Implementing and directing the school sports medicine program to accommodate students with asthma;
- Providing consultation to advanced practice nurses and, where appropriate, clinical supervision for medical diagnosis and treatment of students with asthma;
- Directing inspection of all school facilities and making recommendations regarding environmental health problems within the school system in consultation with local public health personnel and school nursing personnel;
- Providing asthma education at inservice programs for school personnel;
- Providing consultation to the local or regional board of education in matters associated with asthma, as needed;
- Providing consultation and support for school staff with asthma;
- Acting as a resource in the planning and/or implementation of the health education curriculum to ensure asthma is included;
- Interpreting the school health program and policies, including those regarding students with asthma, to parents, the community, the media, and other physicians;
- Acting as an effective communicator and promoting school health policies and their use by community health care providers; and
- Assisting the school in promoting accepted asthma management standards.

Source: Adapted from Connecticut Advisory School Health Council, printed by the Connecticut State Department of Education, 1997



School Nurses

The school nurse plays an integral part in the health and wellness of school children, particularly with regard to chronic conditions, such as asthma. In the school setting, students with asthma experience different levels of severity ranging from mild to severe as well as different levels of management and control. Therefore, it is important for the school nurse to have updated and accurate health records on students in order to effectively manage a student with asthma. Both the Individualized Healthcare Plan and the Asthma Action Plan can assist with this directly.

The following are some major roles for the school nurse in properly managing students with asthma in the school setting:

- Assist students with asthma in managing their condition in school through individualized health care plans that include medication administration plans and promoting self-administration, when appropriate.
- Be alert to students who are not diagnosed with asthma, but exhibit the signs and symptoms. Refer them to their primary care provider or school-based health center for further evaluation.
- Obtain authorization from parents to communicate with the medical provider through the use of a medical release form.
- Provide care coordination for students with asthma. If there are signs of exacerbation or evidence of inadequate control, communicate with parents and refer the student to his/her primary care provider. Encourage direct communication with the student's primary care provider.
- Foster effective communication among community-based clinics, individual practitioners, and emergency room staff.
- Establish back-up protocol in the event the school nurse is not in the building. With the school administrator, identify a staff member to administer asthma medications when this situation arises.
- Work collaboratively with the school medical advisor to plan school health programs on asthma.
- Consult with planning and placement teams as needed when medical problems, such as asthma, interfere with education.
- Provide asthma education to students, families, and staff.
- Participate in planning and placement teams and 504 meetings for students with asthma.

School nurses can play a key role in identifying students who do not have a primary care provider and/or health insurance. Nurses can encourage parents to use the school-based health center and to apply for the HUSKY Program. It is important to ensure good communication, particularly in a health emergency, with all care providers.

Individualized Healthcare Plans (IHCP)

Individualized Healthcare Plans “provide a format to record each step in the nursing process (assessment, diagnosis, planning, implementation, and evaluation), where the school nurse summarizes key information from the assessment phase, synthesizes problem statement(s) in the form of a nursing diagnosis, formulates goals, formulates plans of action, and documents interventions and the evaluation of outcomes” (The School Nurse’s Source Book of Individualized Healthcare Plans; Sunrise River Press, 1993). IHCPs are developed by the school nurse in conjunction with the parent, student, healthcare provider, and other school personnel for students with special health care needs. Typically, these students have multiple health needs, require extended nursing care or multiple contacts, or have health needs requiring daily intervention. Often these student’s health needs may also be addressed through an Individual Education Program or 504 plan. With any chronic illness, consideration should be made if a student is eligible for accommodations under Section 504 of the American with Disabilities Act of 1990 (refer to the Appendix for more information).

For students with asthma, an IHCP will include the use of the Asthma Action Plan. The Asthma Action Plan should provide the school nurse with the medical information on medications, ranges of acceptable responses, potential triggers, and peak flow guidelines. This information should be incorporated into the IHCP as part of the intervention strategies and evaluation criteria. Student and family education is a critical intervention for school nurses.

Students with special health care needs may also have a written Emergency Care Plan (ECP). These ECPs are often formulated as part of the child’s IHCP. Emergency care plans provide specific information about a child’s condition and specific directions about what to do in an emergency. These written plans assist the school nurse, school personnel, and emergency responders to react to an emergency situation in a prompt, safe, and individualized manner.

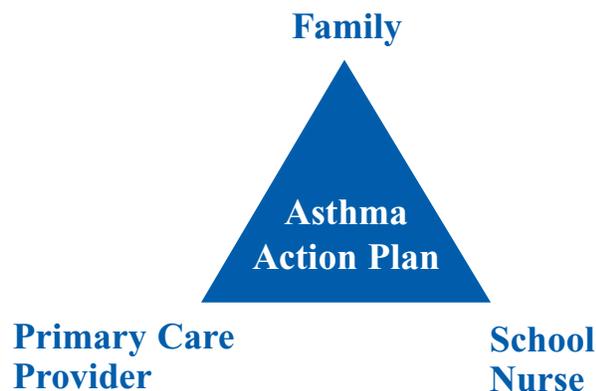
The Asthma Action Plan

The Asthma Action Plan is an individualized management plan developed by the primary care provider and the patient with his/her family. The plan outlines the medical management for asthma including:

- ⊕ Instructions for decision making during an exacerbation or attack;
- ⊕ Medications and how to adjust for increasing severity of symptoms;
- ⊕ Symptoms and peak flow zones, if appropriate, that predict a flare up, and;
- ⊕ A list of triggers to avoid at home and in school.

This plan is very beneficial for the school nurse because it provides comprehensive information needed for intervention and education of students and supports consistent communication with the family and primary care provider.

Throughout the school year, nurses can also help support ongoing communication with parents, primary care providers, and school personnel. The Asthma Action Plan included in this manual provides an example of how this can be done by facilitating direct communication between the school nurse and the student's health care provider



through the use of the medical release form. This collaborative approach to communication helps ensure that students with asthma receive the appropriate care and treatment while enjoying their school experience.

Social/Emotional Aspects

As a part of routine asthma education and management, the school nurse should be sure to assess the social and emotional growth of students with asthma and promote self-esteem in an effort to make students with asthma feel comfortable with their illness. The nurse can try to minimize feelings of insecurity regarding asthma and

also help students fit in with the rest of their peers by doing the following:

Assess social/emotional growth related to student's asthma and self care

- Is the student feeling that he/she is different from other students?
- Is the student avoiding taking medication; toughing it out during an attack?
- Is the student reluctant to go to the office for medications?
- Is the student notifying school personnel about medication needs and/or use if self-administering?
- Is the student sharing medications with other students?
- Is the student avoiding physical activity out of fear of asthma symptoms rather than actual occurrence of symptoms?

Promote self esteem

- Assist student in providing information about asthma care to others.
- Provide positive feedback for good decisions.
- Increase independence in plan of care.

Source: Asthma Management in School Setting, American Lung Association of Washington

School-Based Health Centers

Some schools have school-based health centers which may serve as another source of care for students with asthma. School-based health centers are staffed by pediatric and adolescent health specialists who can work with the school nurse to effectively prevent attacks and treat students with asthma. School-based health center staff can also serve as a resource for the school nurse and can provide support on health education for both staff and students. School staff and administrators should be aware of any students with asthma who are enrolled in school-based health centers in order to ensure the coordination of their health care needs.

(Refer to the end of this section for additional information).

School Nurse Checklist: Planning for Care As School Begins*

The following checklist is recommended for all students identified with asthma. School nurses may also need to be alert to students who have symptoms of asthma and have not yet been identified. This may include students who are coughing a lot, having trouble with physical activity, or visiting the school nurse office regularly.

- ✓ Send an asthma questionnaire home for parents to provide additional information about the student's asthma. (Refer to the end of this section for a sample of the Questionnaire for Parents.)
- ✓ Call or meet with the student and family.
- ✓ Discuss parent/student expectations of asthma care while at school.
- ✓ Obtain Asthma Action Plan for each student with asthma, including students who self-administer medications.
- ✓ Develop Individualized Healthcare Plan and Emergency Care Plan.
- ✓ Determine equipment and supplies needed for school, including a 3-day disaster supply.
- ✓ Discuss plans for communication with parent and primary care provider.
- ✓ Discuss role of health services and personnel involved.
- ✓ Obtain medication order form for administration of medications at school.
- ✓ If needed, have parents sign a Release of Medical Information form.
- ✓ Communicate with necessary school staff about students with asthma. For example, discuss any pet allergies with the school teacher, food allergies with teachers and nutrition staff/food service, and the need to warm up before physical activity with physical education teachers and coaches.
- ✓ Where applicable, actively promote students' enrollment in a school-based health center.

Adapted from Asthma Management in School Setting, American Lung Association of Washington

(Refer to an alternative tracking form which can be used in conjunction with, or instead of, this checklist at the end of this section.)

Tips for the School Nurse

- ✓ Make staff aware of students with allergies.
- ✓ Have a telephone conversation or meeting with parents and students regarding asthma management and treatment for the student.
- ✓ Have a completed copy of a student's *Asthma Action Plan* on record and share information with school staff when necessary.
- ✓ Tell school staff members about students with a history of asthma, when necessary, to ensure student safety.
- ✓ Work closely with school staff and offer assistance in integrating asthma into curricula, including health, science, and physical education.
- ✓ Serve as a resource for school staff and families by having asthma information readily available.
- ✓ Collaborate with the parent/teacher organizations at school to provide asthma education programs for families and community.
- ✓ Identify and keep a list of students who are in need of additional attention based on the severity of their asthma and/or excess absences.

Managing Asthma

Management of asthma involves several approaches including prevention of asthma attacks (minimizing contact with triggers), education, good communication, and use of medications.

What medications are used in the management of asthma?*

Asthma medications belong to two broad categories based on whether they provide **quick relief (“rescue”)** or **long-term control (“controller”)** of asthma symptoms. Generally, **quick relief** or **rescue medications** (bronchodilators) open the airways by relaxing the muscles around the bronchial tubes. Bronchodilators are taken when symptoms begin to occur or when they are likely to occur (e.g., physical education classes or sports events). **Long-term control medications** (anti-inflammatories) reduce inflammation of the airways. Typically, anti-inflammatory drugs are taken on a regular basis, usually once or twice daily, *even in the absence of symptoms*.

(Refer to the end of this section for a list of Common Asthma Medications).

**As with any medications, the nurse should be aware of other medications the student is on and potential interactions that may occur.*

Whose responsibility is it to determine whether or not a student can self-administer his/her medications?

It is the responsibility of the student, the school nurse, the parent/guardian, and the primary care provider to determine whether a student is capable of independently administering medications.

The student’s primary care provider must complete an *Authorization for Self-Administration of Medication at School* form in order for a student to be permitted to carry an inhaler and self-administer the medication. The form must also be signed by the parent/guardian and the school nurse.

If a student is responsible for self-administering his/her own medications, the student will have possession of the medication, and he/she may take them as needed, whether it be on a routine basis or for acute asthma attacks.

**Each school district reserves the right to develop its policies regarding self-administration, please be informed of local policy.*

(Refer to the end of this section for a sample Self-Medication Assessment form).

Interpreting Peak Flow Rates

Peak flow meter recordings need to be interpreted carefully, and they should be done in the presence of an adult because they are effort-dependent. In most children with asthma, peak flow readings are an accurate and reliable measure of resistance to pulmonary airflow. However, in very young children, children with severe asthma, and in children with small airway obstruction, the data becomes more difficult to interpret.

The Asthma Action Plan uses asthma symptoms and/or personal best peak flow rates to determine the zone the student falls under to effectively manage his/her asthma. The following list can be used as a guide to understanding the characteristics of the different levels of peak flow rates.

INTERPRETING PEAK EXPIRATORY FLOW RATES* (PEFR)

- **GREEN (80% to 100% of personal best)**
Signals all clear. Asthma is under reasonably good control. No symptoms are present, and the routine treatment plan for maintenance control can be followed.
- **YELLOW (50% to 79% of personal best)**
Signals caution. Asthma is not well controlled. An acute exacerbation may be present. Maintenance therapy may need to be increased. Call the practitioner if the child stays in this zone.
- **RED (below 50% of personal best)**
Signals a medical alert. Severe airway narrowing may be occurring. A short-acting bronchodilator should be administered. Notify the practitioner if the peak expiratory flow rate (PEFR) does not return immediately and stay in yellow or green zones. Contact the child's parents immediately and send for medical attention.

**These zones are guidelines only. Specific zones and management should be individualized for each child.*

Adapted from Wong's Essentials of Pediatric Nursing, by Donna L. Wong, Marilyn Hockenberry-Eaton, Wilson, Winkelstein, and Schwartz, 6th edition, Mosby Publishing Company.

Different strategies are frequently used for the different levels of asthma severity. For example, in the Green (or GO) Zone, one generally takes controller medicines like inhaled steroids or pre-exercise bronchodilators to prevent symptoms. In the Yellow (or CAUTION) Zone when symptoms are present one usually adds rescue medications, like bronchodilators, and may increase doses of some of the controller medications the patient is already on.

(Refer to the end of this section for a sample Asthma Action Plan).

Management of an Asthma Attack in the School

What to Look For:

- Retractions
- Nasal flaring
- Depressed sternal notch
- Nausea/vomiting
- Fatigue
- Decreased peak flow value

More Serious Symptoms Include:

- Dyspnea (shortness of breath)
- Diaphoresis
- Unwillingness/inability to speak or lie down
- Anxious look
- Stooped body posture

What to listen for:

- Complaints of chest tightness
- Irregular breathing
- Prolonged expiration
- Rapid heart rate
- Grunting
- Abnormal breath sounds:
 - ◆ Wheezing
 - ◆ Decreased or absent breath sounds
 - ◆ Rhonchi



What to do in the event of an asthma attack at school:

- Reassure student and attempt to keep him/her calm and breathing slowly and deeply.
- Review the student's Asthma Action Plan, current medications, and emergency medications.
- Have student sit upright and check breathing with peak flow meter, if appropriate.
- Administer prescribed medication as directed.
- Student should respond to treatment within 15 to 20 minutes. Recheck with peak flow meter.
- If NO change or breathing becomes significantly worse, call for emergency help and contact parent immediately.

Seek immediate emergency care if student exhibits any of the following:

- Coughs constantly.
- Is unable to speak in complete sentences without taking a breath.
- Has lips, nails, mucous membranes that are gray or blue.
- Demonstrates severe retractions and/or nasal flaring.
- Is vomiting persistently.
- Has 50% reduction in his/her personal best peak flow reading and shows no improvement after 15 to 20 minutes.
- Has pulse greater than 120/minute.
- Has respiration greater than 30/minute.
- Is severely restless.

Adapted from the Asthma and Allergy Foundation of America (AAFA)



Asthma Terminology

Use words that can be clearly understood, without too much medical or asthma jargon.

IT IS BEST TO SAY:

People with asthma

Things that start attacks

Asthma clues

Handling or controlling asthma

Breathing meter, your meter

How medicines make you feel

How much to take

How much medicine each person can take

Wet stuff you cough up

Breathing machine

Things you are allergic to

Bothers you

Upsets you

Swollen

Medicines that open the airways fast



INSTEAD OF SAYING:

asthmatics

triggers

signs of asthma, early warning signs

managing asthma

peak flow monitoring

side effects

dose

tolerate medicine

mucus

nebulizer

allergen

irritate (physically)

irritate (emotionally)

inflammation

bronchodilator



These common words may mean something different to children.

IT IS BEST TO SAY:

Stay away from

Sick or have a cold

Running, playing and sports

Making choices

Join in

All the time

Let it dry on a towel



INSTEAD OF SAYING:

avoid (may mean “ignore”)

have an infection (may mean an infected cut)

exercise (this may mean calisthenics)

decision-making

participate

always

let it air dry (this means using a fan to some)

Be careful to avoid words or expressions that make assumptions about a child’s living situation that makes him/her feel left out.

IT IS BEST TO SAY:

At home

People in your family

The doctor or nurse

The room where you sleep

INSTEAD OF SAYING:

at your house

your caretakers, mother, father

your doctor

your bedroom



*Source: A Guide for Helping Children with Asthma.
National Cooperative Inner-City Asthma Study (NCICAS).*

COMMON ASTHMA MEDICATIONS

| CATEGORY | COMMON EXAMPLES: BRAND NAMES | COMMON EXAMPLES: GENERIC NAMES | COMMON SIDE EFFECTS |
|---|--|---|---|
| <p><u>Quick Relief (“rescue”)</u> <i>Inhaled short-acting bronchodilators</i></p> <ul style="list-style-type: none"> • Short-acting medications that act quickly • Improvement is usually seen within 5 to 10 minutes • Given by metered-dose inhaler, dry-powder inhaler, nebulizer • Commonly used in the school setting for quick relief of symptoms • May be used as “pretreatment” drug for exercise-induced asthma | <p>Proventil Maxair Brethaire Ventolin Xopenex</p> | <p>Albuterol Pirbuterol Terbutaline Albuterol Levalbuterol</p> | <p>Unpleasant taste in mouth; dizziness or shakiness; headaches; feeling restless; difficulty sleeping</p> |
| <p><u>Long Term Controllers</u> Taken daily on a long-term basis to gain and maintain control of persistent asthma</p> <p><u>Inhaled long-acting bronchodilators</u></p> <ul style="list-style-type: none"> • Taken as part of daily treatment to control asthma and should not be taken for quick relief of acute asthma symptoms <p><u>Inhaled anti-inflammatory drugs</u></p> <ul style="list-style-type: none"> • Reduce inflammation of the airways, making them more resistant to triggers • Anti-inflammatory drugs may be non-steroidal or steroidal (contains steroids) • These steroids are not the same as anabolic steroids and should not be considered dangerous if given appropriately • Most are given via metered-dose inhaler; Cromolyn may be given via nebulizer | <p>Serevent</p> <p><i>Non-steroidal:</i> Nedocromil Cromolyn</p> <p><i>Steroidal:</i> Azmacort Aerobid Beclovent/QVAR Flovent Pulmicort Vanceril</p> | <p>Salmeterol</p> <p>Tilade Intal</p> <p>Triamcinalone Flunisolide Beclomethasone Fluticasone Budesonide Beclomethasone</p> | <p>Same as above</p> <p>Side effects very rare; skin rashes have been reported</p> <p>If used properly, side effects are uncommon A yeast infection of the mouth may occur Prevent by using a holding chamber and rinsing the mouth after use</p> |

COMMON ASTHMA MEDICATIONS

| CATEGORY | COMMON EXAMPLES: BRAND NAMES | COMMON EXAMPLES: GENERIC NAMES | COMMON SIDE EFFECTS |
|--|--------------------------------|--|---|
| Combination Drugs <ul style="list-style-type: none"> A combination of an inhaled long-acting bronchodilator and inhaled anti-inflammatory drugs | Advair Diskus | Fluticasone Salmeterol | Same as above |
| Anti-leukotrine drugs <ul style="list-style-type: none"> Oral medications that reduce inflammation in the airways by interfering with the inflammation pathways | Accolate Singulair | Zafirlukast Montelukast sodium | Side effects are rare. May include headache and/or stomachache |
| Oral steroids <ul style="list-style-type: none"> May be needed for severe asthma attack Typically given daily or twice a day for short periods of time (a “burst”) so not usually given at school | Prelone Medrol Pediapred | Prednisone Prednisolone Methylprednisone Prednisolone | Side effects depend on the length of treatment and dosage; may include: weight gain, increased appetite, mood changes |

Adapted from: American Lung Association of Washington, *Asthma Management in Educational Settings*

CONTRAINDICATIONS:

- The use of beta blockers like Inderal (propranolol, atenolol, or similar medications) can pose the possibility of bronchospasm in patients with asthma and block the effectiveness of agents such as albuterol, pirbuterol, or salmeterol.
- The use of theophylline and erythromycin may lead to increased levels of theophylline.

* If a school nurse has any questions about medications which may interact with asthma medications, she/he should contact the school medical advisor or the student’s primary health care provider.

Asthma Severity Classification in Children 5 Years of Age and Older: Clinical Features*

Step 1: Mild Intermittent Asthma

Day symptoms ≤ 2 times a week

Exacerbations brief (from a few hours to a few days); intensity may vary

Nighttime symptoms ≤ 2 times a month

Asymptomatic and normal PEF between exacerbations

PEF or FEV₁ $\geq 80\%$ of predicted value

PEF variability $< 20\%$

Step 2: Mild Persistent Asthma

Symptoms > 2 times a week, but < 1 time a day

Exacerbations may affect activity

Nighttime symptoms > 2 times a month

PEF/FEV₁ $\geq 80\%$ of predicted value

PEF variability 20% to 30%

Step 3: Moderate Persistent Asthma

Daily symptoms

Daily use of inhaled short-acting beta₂-agonists

Exacerbations affect activity

Exacerbations = 2 times a week

Exacerbations may last days

Nighttime symptoms > 1 time a week

PEF/FEV₁ $> 60\%$ to $< 80\%$ of predicted value

PEF variability $> 30\%$

Step 4: Severe Persistent Asthma

Continual symptoms

Frequent exacerbations

Frequent nighttime symptoms

Limited physical activity

Peak expiratory flow (PEF) or forced expiratory volume in

1 second (FEV₁) $\leq 60\%$ of predicted value

PEF variability $> 30\%$

**The presence of one clinical feature of severity is sufficient to place a patient in that category. An individual should be assigned to the most severe grade in which any feature occurs. The characteristics in this table are general and may overlap because asthma is highly variable. An individual's classification may vary over time.*

Source: National Asthma Education and Prevention Program: Expert Panel Report II: Guidelines for the Diagnosis and Management of Asthma. Bethesda, MD, 1997, National Heart, Lung, and Blood Institute.

Signs That May Indicate Asthma Is Poorly Controlled

- Persistent Cough
- Coughing, Wheezing, Chest Tightness, Shortness of Breath after Physical Activity
- Low Level of Stamina During Physical Activity
- Reluctance to Participate in School Activities and/or Physical Activity
- Excessive (more than one day/month) of absences from school
- Frequent visits to nurse's office for respiratory symptoms

Acute Symptoms Requiring Prompt Action

- Coughing or Wheezing
- Difficulty in Breathing
- Chest Tightness or pressure – reported by student
- Other Signs – low peak flow

All School Staff

It is important for school staff to be aware of things that may impact a student with asthma. This includes understanding activities or conditions that may cause an asthma attack and recognizing early signs of an asthma episode.

Asthma is a big concern to school administrators, parents, and teachers because it is the leading cause of school absenteeism due to a chronic illness. Students with asthma may have trouble keeping up-to-date with assignments because of missed days of school and classroom time. Therefore, it is important for staff to:

- Be sensitive to the needs of any student with asthma;
- Understand what causes asthma attacks and how to minimize them;
- Understand early warning signs, and;
- Be educated on medication administration.

While there is no cure for asthma, it can be controlled by understanding asthma, its triggers, and how to successfully minimize environmental exposures.



It is important to be aware of the early warning signs, and what to do in the case of an attack. School administrators, teachers and coaches provide the ideal setting for teaching

students about asthma and how to be sensitive to their peers with asthma.

Asthma attacks can occur anywhere in the classroom, on the playground or sports fields, on school buses, or during field trips. This is why it is essential for all staff to be educated about asthma. It is not a role solely

Triggers

Activities, conditions, or substances that cause the airways to react and asthma symptoms to occur:

- **dust mites**
- **mold**
- **chemicals**
- **changes in temperature**
- **tobacco smoke**
- **furry pets**
- **exercise**
- **stress**
- **cockroaches**

Triggers are different for each person.

for the school nurse. In the case where a school nurse is unavailable, other staff may need to take responsibility for asthma medication administration.

Understanding Early Signs of an Asthma Episode

As staff members, it is important to both understand how to recognize asthma warning signs, and to educate students with asthma about the early signs of an asthma episode so that the student can take the appropriate medication to keep the asthma under control.

Early Signs & Symptoms

- ◆ Cough or wheeze after physical activity
- ◆ Breathing problem during particular seasons
- ◆ Cough, wheeze, or chest tightness after exposure to allergens
- ◆ Colds that last more than 10 days
- ◆ Symptoms relieved when rescue medication is used

IF A STUDENT IS EXPERIENCING ANY OF THESE SYMPTOMS, IT SHOULD BE BROUGHT TO THE ATTENTION OF THE SCHOOL NURSE.

(Refer to the end of this section for a poster of the Early Signs of an Asthma Episode)

Asthma is a Physical Condition

It is not Psychological

Asthma is a real chronic disease of the lungs; it is not “all in the child’s head.” Just like any chronic disease, students with asthma may have difficulty coping with their disease. They may feel left out or “different” from their peers, particularly when they are unable to participate in

physical activities with the rest of their classmates. If a student is unable to participate, he/she should be assessed by the school nurse because he/she may not be on the correct treatment. The school nurse should communicate with the student’s parents and primary care provider to advocate for a change in treatment. Students on an appropriate treatment plan should be able to tolerate the same activities as other students.

Students with asthma may also have trouble keeping up with schoolwork because of days missed from school due to their asthma. Teachers may notice low self-esteem, withdrawal from activities, stress, and/or discouragement over managing asthma. In these cases, teachers should seek assistance from the school guidance counselor, so that the child can get individualized counseling to deal with those issues.



Recognize that asthma is a health condition, and try to give students the benefit of the doubt if a student says that he/she is unable to participate in class or tests, etc. Do not assume that the student is just trying to get out of activities in school. However, if a pattern emerges where a student is constantly avoiding exams and/or other activities, a discussion with the school nurse and parent(s) should take place.

The Role of the School Environment on Asthma

Most of us spend a large portion, up to 90% of our days, indoors. Each day, one in five

Americans spends part of his/her day in a school building, most of whom are children. Avoiding environmental triggers is an important part of managing a student's asthma. Since children spend much of their time in school, it is important to be aware of the quality of the air in the school.

Many indoor air quality problems can be prevented or lessened by taking appropriate action.

The Environmental Protection Agency has developed *IAQ Tools for Schools*, a program that focuses on evaluating and maintaining a healthy school environment. This program concentrates on solving and preventing indoor air quality problems, thus decreasing the risk of exposure to students with asthma.

Indoor

Staff should be aware of asthma triggers found in the school environment. Common things that may induce asthma symptoms or make asthma symptoms worse include pests (cockroaches, rats), mold from moisture in the classroom, dander from furry or feathered pets in the classroom, strong smells, perfume, cleaning solutions, paint, and/or chalk dust.

Outdoor

There are also asthma triggers in the outdoor environment that can exacerbate or make a student's asthma worse. These include ozone air pollution, automobile and diesel bus exhaust, and pollen. While it is not always easy to avoid these triggers, simple steps can be taken to help reduce exposure.

- Ozone levels are generally highest on hot and humid days. Therefore, reducing and/or restricting outdoor activities (particularly strenuous activities) on these days will reduce exposure to ozone.
- Diesel buses should not be allowed to idle outside of the school building, since the exhaust can be drawn into the building. Connecticut General Statutes Section 22a-174-18(a)(5) prohibits bus idling for longer than three minutes.
- Lawn mowing can increase the amount of pollen in the air, so in order to reduce exposure, lawn mowing activities should not be done prior to outdoor school activities.

(Refer to the end of this section for additional information).

Special Note:

Please refer to the Food Service Staff section for important information on food allergies and asthma.

Teaching Staff

Since students spend a majority of their school day in the classroom, it is helpful for teachers to understand asthma and how to support any students with this illness. In addition to recognizing the early warning signs of an asthma attack and understanding how to reduce asthma triggers in the classroom, there are certain steps teachers can take to help students feel more comfortable about their asthma when at school.

- Encourage students with asthma to participate in all activities, including physical education;
- Develop a protocol for making up missed schoolwork with parents and students with asthma; and
- Educate other students in the classroom about asthma.

Unlike other school staff, teachers have a special relationship with their students in that they spend more time with them during the day and may know more about them. Therefore, they have the opportunity to notice any emotional and/or physical changes in students. Teachers can assess the social and emotional growth of students with asthma and help to promote their self-esteem. Teachers can also help minimize any feelings of insecurity regarding their asthma and help them fit in with the rest of their peers by evaluating the following questions:

- Is the student feeling that he/she is different from other students?
- Is the student avoiding taking medications; toughing it out during an attack?
- Is the student reluctant to go to the office for medications?
- Is the student notifying school personnel about medication needs and/or use if self-administering?
- Is the student sharing medications with other students?
- Is the student avoiding physical activity out of fear of anticipated asthma symptoms rather than the actual occurrence of asthma symptoms?

FIELD TRIPS

When planning a field trip for the classroom, teachers should consult with the school nurse and parents about location and the general environment to be visited. Sites such as zoos, smokey areas, and botanical gardens may trigger asthma. Make sure that the student's medications, peak flow meter (if prescribed) and Emergency Care Plan (refer to the end of this section) are brought with the student on the field trip.

(Refer to the end of this section for additional information).

Source: Asthma Management in School Setting, American Lung Association of Washington

Action Steps for Teachers to Reduce Asthma Triggers in the Classroom

Teaching equipment

- Clean chalkboards when students are not in the classroom. Clean erasers outside.
- Paints and markers often have strong fumes. Replace tops when not in use or use unscented markers.
- Stuffed animals and toys should be made of synthetic material. Store in plastic bags or wash several times a year. Keep plastic storage away from students when not in use.
- Use animals with no fur, such as fish or snakes. The allergen particle from pets with fur is smaller than the dust particle and remains in the air for a longer period of time.

Furniture

- Bookshelves trap dust easily. Dust weekly when the students are not in the classroom.
- Lamps should have plain shades rather than pleated shades that can trap more dust.

Windows

- Check pollen count before opening windows for “a little fresh air.”

Teachers and Staff

- Avoid perfumes, scented talcum powder, and hair sprays.
- Smokers need to know that the smoke they bring from the smoking area lingers in their hair and on their clothes.
- Avoid overwatering plants, which may contribute to mold growth.

Classroom cleaning supplies

- Many children cannot read. If you have cleaning materials (chemical) in the classroom be sure there are danger stickers on them. Some cleaning products have strong fumes. Replace caps quickly and use when the students are not in the classroom, whenever possible.
- Avoid using aerosol sprays with students around.

Use natural cleaning agents

- White or apple cider vinegar removes mold, mineral deposits, and crayon marks.
- Baking soda is a good general cleaner that can also be used as a room rug deodorizer or refrigerator deodorizer.
- Club soda is a good spot remover.
- Clorox bleach solution is a viricide, mold remover, and cleaning agent.
- Use liquid rather than bar soap (mild or unscented) for hand washing.

Source: Chicago Public Schools

Tips for the Classroom Teacher

- ✓ Be aware of students in the classroom with asthma.
- ✓ Know the early warning signs of an asthma episode.
- ✓ Get information on managing asthma in the classroom from the school nurse and understand the steps to take in case of an asthma episode.
- ✓ Develop a clear procedure with the student and parent for handling schoolwork missed due to asthma.
- ✓ Understand that a student with asthma may feel:
 - Drowsy or tired;
 - Different from the other kids;
 - Anxious about access to medication;
 - Embarrassed and/or withdrawn about the disruption to school activities that an asthma episode causes.
- ✓ Help students feel more comfortable by recognizing these feelings. Try to maintain confidentiality. Educate classmates about asthma so they can be more understanding.
- ✓ Know the possible side effects of asthma medications and how they may impact the student's performance in the classroom. Refer any problem to the school nurse and parent(s). Common side effects of medicine that warrant referral are: nervousness, nausea, jitteriness, hyperactivity, and drowsiness.
- ✓ Reduce known allergens in the classroom to help students with allergies. Common allergens in the classroom include: chalk dust, animals, and strong odors (perfumes, paints).
- ✓ Encourage the student with asthma to participate fully in physical activities.
- ✓ Allow a student to engage in quiet activity if recovery from an acute episode precludes full participation.

Adapted from Managing Asthma: A Guide for Schools, National Heart, Lung, and Blood Institute (NHLBI), National Institutes of Health, US Department of Health and Human Services and the Fund for the Improvement and Reform of Schools and Teaching, Office of Educational Research and Improvement (OERI), US Department of Education, September 1991. NIH Publication No. 91-2650

School Staff: Frequently Asked Questions About Asthma

Q: I think that having animals in my classroom is important for students. What if I just don't allow the student with asthma to handle the animals?

A: The allergen associated with animals is the dander (e.g., oils, skin, droppings that settle on its fur). That dander can become airborne, settling on furniture and students. It can affect a student even if the student isn't actually handling the animal. Prohibiting certain students from handling the animals singles them out. Consider reptiles as a good alternative to furry or hairy animals.

Remember that animal dander in the environment can persist for months after the animal is gone and is difficult to remove.

Q: I worry that students may use their asthma as an excuse to get out of activities in school such as tests, physical education class, etc. How do I remain firm in my expectations without jeopardizing the student's health?

A: Students should be given the benefit of the doubt until a pattern of avoidance behavior emerges. In that case, the school nurse and parent should be involved in discussion with the teacher about the teacher's concerns. A peak flow meter may be used to help decide whether or not a student should be excused from an activity. At no time should a student be encouraged to "tough it out" instead of taking a needed quick-relief medication.

Q: I worry that students may share their medications with other students who may want a "buzz" from the inhaler.

A: When students are allowed to carry their own medications, they and their parents need to understand that this is a privilege that could be taken away. Making students aware that they may be putting other students in physical danger if they share their medication may help avoid this problem.

Q: What should I do when a student who has exercise-induced asthma comes to the office for an inhaler before physical education, but the student's peak flow reading is in the "green zone?" Should I administer the medication anyway?

A: Yes! The quick relief medication given before exercise will prevent the student from having problems during physical education, which may trigger the airways to constrict.

Teaching Resources

There are a variety of educational programs and materials available for school staff that teach students both with and without asthma about healthy behaviors, asthma management, and treatment. Many of these programs and materials are available through national organizations such as the American Lung Association (ALA), American Academy of Asthma, Allergy, and Immunology (AAAAI), or Asthma and Allergy Foundation of America (AAFA), as well as their local chapters.

A major component of asthma education programs is teaching students and their families greater awareness and sensitivity towards children with asthma. This includes understanding asthma triggers, signs and symptoms, and what to do in case of an attack. Sensitivity around asthma is important since some students with asthma may feel left out, isolated, or uncomfortable with their condition.

The following asthma education programs are just a sample of what is available for school-aged children. Each program incorporates different teaching methods and techniques for interactive learning.

Preschool Ages

A is For Asthma (*American Lung Association*): A preschool educational program in English and Spanish was developed by Children's Television Workshop and funded by the Prudential Foundation for the American Lung Association. The fully bilingual package



includes: a 15-minute video, a Caregiver Guide to share with other adults in the childcare program, and a poster that reinforces the video's important messages. To order, call the American Lung Association of Connecticut at (860) 289-5401 or at 1-800-LUNG-USA.

Elementary School Ages

Asthma Awareness: Curriculum for the Elementary Classroom (National Institutes of Health): Developed for use with elementary school children, these lessons are easily integrated into a comprehensive health education curriculum and/or into science as it relates to body systems and the environment. They can also be integrated into social sciences as they relate to getting along with others and learning about community resources. The lessons include suggestions for math, art, and language arts activities.

There are two lessons for grades K to 3, each requiring about 30 minutes per session. Instruction for grades 4 to 6 is also divided into two lessons, each about 30 minutes in length. Lesson length is

dependent on the choice of teaching strategies. Lessons will be longer if several interactive strategies or supplemental activities such as puppet shows, films, and readings are employed.

The lessons are designed to:

- Develop a basic understanding of asthma and help correct misinformation.
- Inform students about appropriate actions that can help people with asthma.
- Provide resources to share with parents and other family members.

Printed versions may be ordered online at email.nhlbi.net or by phone at the NHLBI Health Information Center at 301-592-8573. The cost is \$5.50 for a single copy, \$116.00 for 25 copies, or \$440.00 for 100 copies. Discounts are available when ordering large quantities.

Dr. Al Lergist Coloring Book: A coloring book created by the American Academy of Allergy, Asthma, and Immunology for young children. Young children will enjoy coloring and learning from Dr. Al Lergist and the Sneeze 'n Wheeze Busters. Equipped with his peak flow meter and inhalers, Dr. Al is paired with his friends Annie Histamine and Buster Bronchodilasaurus. Each coloring book is \$1.00 and can be ordered by calling 414-272-6071 or visit the website at www.aaaai.org.



Best of Superstuff (American Lung Association): An activity book created by the American Lung Association for children ages 6 to 8. The booklet is designed to help make learning about asthma fun for children. The activities are aimed at helping children and families acquire some important asthma management techniques at home and to enhance children's and parents' coping skills with asthma, as well as children's self-esteem, self-awareness, and knowledge about asthma. The booklet can be used in conjunction with an organized class or individual instruction. It can also be used at home as a self-teaching tool for young children who are learning how to better manage their asthma. For more information about Best of Superstuff, call the American Lung Association of Connecticut at (860) 289-5401 or at 1-800-LUNG-USA.

Open Airways (American Lung Association): This interactive program was developed and evaluated by Columbia University's College of Physicians and Surgeons to help children (Grades 3, 4, 5) and parents take control of asthma. The program consists of 6 lessons of approximately 40 minutes each. Through stories, games, and role-playing, children learn what causes asthma episodes and how to manage them. A detailed curriculum and an instructor's guide, plus posters and handouts, make teaching and learning fun for everyone involved. Open Airways for Schools has a documented track record of success, including fewer and less severe asthma episodes, a reduction in the number of

missed school days, and improved grades. For more information, call American Lung Association of Connecticut at (860) 289-5401 or at 1-800-LUNG-USA.

Educational Guide on Lung Health for Elementary School Children:

Developed by the NetWork on Cultural Diversity in Medicine and the Task Force on Women & Girls, Tobacco, & Lung Cancer of the American College of Chest Physicians, with support from the CHEST Foundation.

Aimed at health professionals and other adults working with children in grades 3 to 6, the Educational Guide on Lung Health for Elementary School Children features lessons, handouts, activities and resources. Lessons are designed for half-hour or hour-long sessions, depending on the activities used. They may be incorporated into health, science or social science classes or used in after-school activities.

The asthma lessons help students develop a basic understanding of the lungs and asthma and how they can support classmates with asthma. The anti-tobacco unit not only shows students how the lungs work and the health effects of smoking but also teaches them ways to resist smoking.

You'll also find suggested group activities, including role-playing, as well as written games, exercises, and quizzes to drive the points home.

Download the Guide at:

<http://www.chestnet.org/health.science.policypatient.education.guides/children.lung.health>

Middle School and High School Ages

Power Breathing: By providing a basic understanding of asthma and its management in a peer-friendly environment, the Power Breathing™ program empowers and motivates teens to take control of their asthma on a personal level.

This three-session program assists teens in learning about asthma, developing decision-making skills needed to make appropriate choices in managing their asthma, and integrating asthma management into their day-to-day lifestyles. Specific fears and concerns teenagers experience in their unique social situations are addressed in a peer-friendly environment and alternative strategies are explored to achieve effective asthma management. Elements include hands-on instruction, problem-based learning, discussion, strategic thinking, video animation, and *Class Dismissed!*, a board game to test asthma knowledge.



Power Breathing conforms to the National Heart, Lung and Blood Institute's 1997 Guidelines for the Diagnosis and Management of Asthma. The cost is \$295.00. To order by phone, call the New England chapter of the

Asthma and Allergy Foundation of America at 1-877-2-ASTHMA or call the national number at 1-800-2-ASTHMA.

Order online:

<http://www.aafa.org/healthprofessionals/programsandmaterials/index.cfm>.

Not On Tobacco (N-O-T) is a state-of-the-art program specifically designed for teenagers who want to stop smoking. This program was developed by the American Lung Association, in collaboration with researchers at West Virginia University.

The *N-O-T* program consists of a 10-session curriculum, plus booster sessions to reinforce what the group has learned. The program is gender-sensitive and emphasizes daily life management skills, such as stress management, and healthy behaviors, including nutrition and exercise. Initial results from an ongoing national evaluation show that N-O-T does help teens stop smoking or reduce the number of cigarettes they smoke, which is often the first step to quitting entirely. For more information, call the American Lung Association of Connecticut at (860) 289-5401 or at 1-800-LUNG-USA.

All School Ages



The ***Breath ExpressSM*** is an education center on wheels that will enable the American Lung Association of

Connecticut to expand efforts to bring lung health education throughout the state. It will provide educators and students with a unique and interactive opportunity to learn about asthma, how the lungs work, and what they do. The educational presentation will show the ill effects of tobacco on the lungs, thereby reinforcing the importance of maintaining healthy lungs. For more information about *Breath Express*, call the American Lung Association at 1-800-LUNG-USA.

In addition to educational programs and materials, there are other resources available to schools and communities.

(Refer to the "Resources" section for more information).



Books About Asthma for Children

These books may be useful when teaching children the facts of asthma—they are meant to inform and entertain. They are also a good way of helping families share reading time together.



The ABC's of Asthma by Kim Gosselin

Very easy ABC book. Provides basic information about asthma. (ages 5-7)

All About Asthma by William Ostrow and Vivian Ostrow

Written by a young boy with asthma and his mother. Talks to kids the way kids talk. A realistic book about asthma and its effects on a child. (ages 7-11)

The Babysitter's Club: Welcome to the BSC, Abby by Ann M. Martin

#90 in the Babysitter's Club series. Abby, a new girl in town, joins the club. Trouble comes when she is rushed to the hospital with an asthma attack while babysitting. Deals with mature family subject matter and a young girl's concerns about controlling asthma. (ages 11-15)

I'm Tougher Than Asthma by Alden R. Carter and Siri M. Carter

Written by a young girl with asthma and her mother. Includes photos of the girl and her family. Includes a resource section. (ages 5-10)

Jackie Joyner-Kersey: Champion Athlete

Story of the athlete's career, including her struggle with asthma. (ages 13-17)

Kids Breathe Free: A Parent's Guide for Treating Children with Asthma

Pritchett & Hull Associates, Inc.

Written for parents, but the simple text and cartoon pictures make it a good book to share with children. Includes charts, treatment plans, and resources. (Parents and Children ages 5-9)

The Lion Who Had Asthma by Jonathan London

Written for the young child with asthma. Sean loves to pretend he is a lion, but must first cope with his asthma. Easy text and colorful pictures. (ages 5-7)

Sportercise! by Kim Gosselin

Justin is afraid to join his school team due to asthma. But after talking to his doctor and teachers, he takes control and goes on to win the Sportercise trophy. Upbeat. (Teachers and Children ages 6-9)

Taking Asthma to School by Kim Gosselin

Told by a child with asthma. Lively pictures. Includes the “Asthma Kids Quiz” and ten tips for teachers. Great to share in class. (Teachers and Children ages 6-9)

Zooallergy by Kim Gosselin

Story of a trip to the allergist and then a trip to the zoo. Asthma triggers are found, and fun is had by all. (ages 6-9)

Physical Education Staff

Teachers/Coaches/Athletic Directors

The importance of physical activity for students with asthma should not be overlooked. While some students restrict their participation in physical activity, this is not always necessary. Students with asthma can, and should, participate in school sports and physical activities.

Coaches, physical education teachers, and/or athletic directors need to learn about asthma and be sensitive to the needs of any student with asthma. This includes:

- Understanding what causes asthma attacks and how to minimize them;
 - Understanding early warning signs;
 - Access to and awareness of student's emergency care plan;

 - Education on medication administration;
- and
- Access to medication in case of an acute episode.

Students with asthma should be included in physical activities as much as possible. If not, they may risk experiencing being left out or isolated, which can result in low self-esteem, lack of motivation to participate in activities, or teasing by classmates. Staff and students should be encouraged to help

students with asthma participate in activities to help reduce any stigma.

To assist students with asthma participate in physical activities, modifications to type, length, and/or frequency of activity may be necessary. Modifications are particularly important if a student has just experienced an acute episode or if he/she asks to be excused from physical activities.



Exercise-Induced Asthma

Regular exercise is a major contributor to healthy lifestyles for all ages. However, exercise is a common trigger for asthma and this should be recognized and understood by school staff.

Children with asthma can, and should, participate in physical activity.

Exercise-induced asthma (EIA) occurs when physical activity causes a narrowing of the bronchial tubes called bronchoconstriction.

Bronchoconstriction can cause wheezing, coughing, chest tightness, and/or shortness of breath both during and after exercise. Other symptoms can include fatigue or chest congestion. Some say that EIA feels like being “out of shape.” Not all people with asthma experience symptoms of EIA when they exercise. However, 80% to 90% of people who have asthma also have EIA. Furthermore, one can have EIA without having chronic asthma.

The severity of EIA often correlates with the type and intensity of the exercise and the environment in which it is performed. For example, people with EIA are more likely to experience symptoms when running; they are less likely to experience symptoms when cycling or swimming. Asthma varies from student to student, therefore, it is important for school staff to understand individualized needs of their students. A student’s Individualized Healthcare Plan may include individualized guidelines on physical activity. Physical education teachers, coaches, and athletic directors should have easy access to this information from the school nurse. If a student experiences frequent asthma symptoms while exercising, this may suggest that his/her asthma is not well managed. This is important information to communicate with the school nurse.

Five Ways to a Wheeze-Free Workout

- Warm Up Early
- Drink Up
- Go Nasal
- Avoid High Noon
- Wear a Mask

Activities Less Likely to Cause Exercise-Induced Asthma:

- Baseball
- Swimming
- Football
- Tennis
- Golf
- Weightlifting

Athletes With Asthma

Asthma hasn’t stopped these athletes from performing at their best:

- Jerome Bettis, running back, Pittsburgh Steelers
- Tom Dolan, Olympic Medalist, swimming
- Amy Van Dyken, Olympic Medalist, swimming
- Dennis Rodman, Basketball player

(Refer to the end of this section for additional information).

Asthma Magazine, *May/June 2001 Volume 6, Number 2*, Mosby Inc. and “*Management of Exercise-Induced Asthma: Helpful Hints for Sports Coaches*” from the website www.asthmaaustralia.org.au

Tips for Coaches, Physical Education Teachers, and Athletic Directors

- ✓ Make sure to know who has asthma in the class/on the teams.
- ✓ Make sure that students with a physician's order to take bronchodilator prior to exercise do so and have access to their medications at practice and games. Be aware that after taking medications, students may feel jittery or nervous, and have an increased activity level.
- ✓ Include adequate warm-up and cool-down periods. This may help prevent or lessen episodes of exercise-induced asthma.
- ✓ Consult the student's school nurse or parent regarding the type and length of any limitations. Assess the student and school resources to determine how the student can participate most fully.
- ✓ Remember that a student who experiences symptoms or who has just recovered from an asthma episode is at even greater risk for additional asthma problems. Take extra care. This includes observing for asthma symptoms and consulting the Emergency Care Plan if there are any questions or concerns.
- ✓ Monitor the environment for potential allergens and irritants, for example, a recently mowed field or refinished gym floor. If outdoor activities are planned, be sure to check ozone levels. If an allergen or irritant is present, then consider temporarily changing the location.
- ✓ Make exercise modifications as needed to get the appropriate levels of participation.
- ✓ Keep the student involved when any temporary, but major modification is required. Ask the student to act, for example, as a scorekeeper, timer, or equipment handler until he/she can return to full participation. Dressing for a physical education class and participating at any level is better than being left out or left behind.

Adapted from Asthma and Physical Activity in the School. Making a Difference, National Heart, Lung and Blood Institute, National Institutes of Health, September 1995

Custodial Staff

The school custodial staff plays a vital role in a school's indoor air quality. A healthy school environment leads to healthier, more productive students and staff. Cleaning methods and materials significantly impact the particulate and volatile organic compound (VOC) levels in schools. Listed below are some ways in which custodians can help provide and maintain a healthy school environment.

CLEANING

Carpets can be a significant source of dirt, dust mites, and mold, all of which are asthma triggers. To help reduce this, carpeted areas should be vacuumed daily. All other rooms should be vacuumed every other day with a commercial quality high efficiency particulate arresting (HEPA) filter or cleaner. All carpets should be steam cleaned once a year with truck-mounted 190 degree F steam. The carpet must be thoroughly dry within 24 hours to avoid microbial growth.

Hard Floors that are kept clean are less likely to be a source of dirt, dust mites, or other asthma triggers. Dust with static electricity or mineral oil treated mops daily, and wet mop weekly.

Bookshelves trap dust easily. All horizontal surfaces should be dusted weekly when students are not in the classroom.

Cleaning Supplies can contain chemicals that irritate students and staff with asthma. Evaluate all materials that can add chemicals to the air of classrooms and replace with safer, effective alternatives when possible.

Pests, including cockroaches and mice, pesticides, and herbicides can be asthma triggers. Integrated Pest Management (IPM) can solve most pest problems. IPM is based on preventing pests by decreasing the resources they need to survive, and does not involve automatic application of pesticides. When pests become a problem, alternatives to pesticides are used to reduce the pest population.

(Refer to the end of this section for procedures on how to implement IPM).

HVAC SYSTEM (HEATING, VENTILATION, AND AIR CONDITIONING)

A significant percentage of indoor air problems and complaints can be attributed to the HVAC system. It has been shown that through inspection and routine maintenance, indoor air quality problems can be reduced. Common problems include blocked fresh air intakes, dirty filters, or mold buildup. The following steps will help these types of problems.

- Conduct routine inspections of the HVAC system.
- Establish a routine schedule for changing air filters.
- Clean fan blades and front grate monthly. Face fan to blow out toward the window to decrease bringing pollen and pollution into the classroom.

Adapted from: Asthma Management in Educational Settings (AMES), American Lung Association of Washington, 2/01

(Refer to the end of this section, for additional information).



Action Steps for Custodians to Reduce Asthma Triggers in the School

Floors

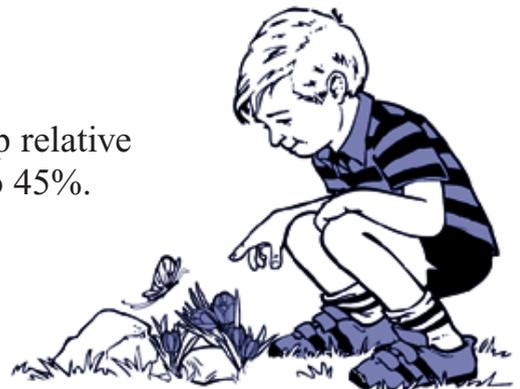
- Remove rugs if possible, and keep floors clean. Bare wood or tile floors are best.
- Carpet squares trap dust. Clean them weekly. Avoid vacuuming when students are in school.

Windows

- Avoid curtains. If you need a valance, choose synthetic fibers instead of natural fibers. Wash valances or curtains twice a year.
- Roller shades are better than curtains. Clean with damp cloth weekly.

Heating and cooling systems

- Clean fan blades and front grate monthly. Face fan to blow out toward the window to decrease bringing pollen and pollution into the classroom.
- Do not put towels under window units to collect condensation. This is an excellent place for mold and bacteria to grow.
- Clean or change window air conditioner filters every 2 weeks.
- Avoid using belt-type humidifiers.
- Use air conditioners or a dehumidifier to keep relative humidity in the classroom low, between 35 to 45%.



School Staff

- Avoid perfumes, scented talcum powder, and hair sprays.
- Smokers need to know that the smoke they bring from the smoking area lingers in their hair and on their clothes.

Classroom cleaning supplies

- Some cleaning products have strong fumes. Replace caps quickly and use when the students are not in the classroom, whenever possible.

Use natural cleaning agents:

- White or apple cider vinegar removes mold, mineral deposits, and crayon marks.
- Baking soda is a good general cleaner that can also be used as a room rug deodorizer or refrigerator deodorizer.
- Club soda is a good spot remover.
- Clorox bleach solution is a viricide, mold remover, and cleaning agent.
- Use liquid rather than bar soap (mild or unscented) for hand washing.
- Clean woodwork weekly with a damp cloth.

Source: Chicago Public Schools

Tips for Custodians

- ✓ Work with administration to identify areas in the school that may contribute to indoor air pollution.
- ✓ Participate on the Indoor Air Quality (IAQ) management team at your school, and help evaluate the needs of the school.
- ✓ Work with administration to assess how well the current IAQ program works.
- ✓ Identify barriers to maintaining good indoor air quality. Once the barriers are identified, discuss strategies with administration and/or the IAQ management team on how to implement the strategies.
- ✓ Determine what is reasonable with regard to cleanliness and elimination of environmental pollutants in the school.
- ✓ Use the Integrated Pest Management Plan.

Food Service Staff

The Link Between Food Allergies and Asthma?

While research suggests that food allergies can bring on an asthma attack, it is not a common cause of asthma. However, it is important for parents to communicate to staff so that staff members understand what the child is allergic to, how to identify the food(s),

According to the Food Allergy Network, people who have food allergies and asthma are at increased risk for severe allergic reactions.

recognize symptoms, and initiate treatment, when necessary. Since an allergic reaction can occur anywhere, it is recommended that teachers, food service staff, and school nurses are aware of the children who have food allergies and that they know what to do if a reaction occurs. Anyone with a previous history of a reaction to a food allergy is at risk for a repeat reaction. Avoidance is

the only way to prevent an allergic reaction. In addition to food, the most common causes of severe allergic reactions include insect stings, latex and medications.

Information About Anaphylaxis

Research demonstrates that children with asthma are at a greater risk for severe allergic reactions to food. The most serious kind of allergic reaction is anaphylaxis. Anaphylaxis is a sudden, severe, and potentially fatal allergic reaction that can involve various areas of the body. Symptoms can occur immediately or after several hours. The potential severity of a reaction is difficult to predict ahead of time so it is necessary to approach each episode of anaphylaxis as potentially life-threatening.

It is important to understand and recognize the signs of anaphylaxis. A student with an anaphylactic reaction may experience any of the following symptoms:

These eight foods account for 90% of all allergic reactions:

- Eggs
- Fish
- Milk
- Peanuts
- Wheat
- Soy
- Tree nuts (walnuts, pecans)
- Shellfish

Peanuts are the leading cause of severe allergic reactions. (The Food Allergy Network)

- Itching and swelling of the lips, tongue, or mouth;
- Itching and/or a sense of tightness in the throat, hoarseness, and hacking cough;
- Hives, itchy rash, and/or swelling of the face or extremities;
- Nausea, abdominal cramps, vomiting, and/or diarrhea;
- Shortness of breath, repetitive coughing and/or wheezing;
- “Thready” pulse, “Passing out.”

The symptoms of an allergic reaction can change suddenly and become serious and/or life-threatening. Children with a history of anaphylaxis or severe allergic reaction should have an EpiPen for immediate use by the school nurse. Notify the school nurse at the first signs of an allergic reaction. The nurse will refer to the student’s emergency care plan for appropriate treatment and for medication administration, call **911** and contact the student’s parents and primary care provider.

(Refer to the end of this section for additional information).



Tips on Nutrition

School Staff (Teachers/Coaches)

- Inquire about each student's food allergies during parent-teacher conferences at the beginning of the year.
- Work with the parents to protect students from life-threatening food allergy reactions.
- Keep students with food allergies away from foods known to cause allergies.
- Educate students in the classroom about food allergies.

School Nurse

- Educate school personnel about food allergies and asthma, and steps they can take to prevent food allergy reactions from occurring.
- Maintain communication with parent, student, and health care provider to make sure that the Asthma Action Plan is up-to-date and that it reflects any food allergies or special food needs. Keep the students' Asthma Action Plans in a readily accessible location.
- Educate all staff on emergency response to asthma episodes and food-induced anaphylaxis.

Asthma Triggers

in the School Environment



Chalk Dust



Exercise



Environmental Tobacco Smoke



Colds, Flu, Bronchitis and other Upper Respiratory Infections

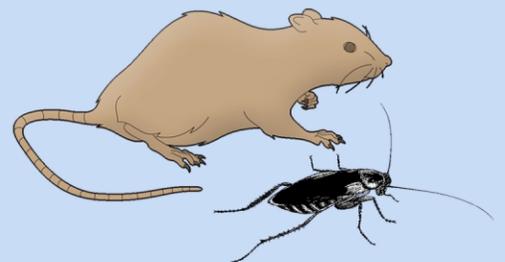
Chemical Fumes



Dander from Furry or Feathery Animals



Cut Grass, Trees, Plants and Pollen



Cockroach Particles, Mouse Droppings

Early Signs

of an Asthma Episode

A student may exhibit one or more of these signs during the initial phase of an asthma episode:

■ Changes in Breathing

- Coughing
- Wheezing
- Breathing through the mouth
- Shortness of breath
- Rapid breathing



■ Verbal Complaints

- “My chest is tight.”
- “My chest hurts.”
- “My neck feels funny.”
- “My mouth is dry.”
- “I don't feel well.”
- “I can't catch my breath.”

Often a student who is familiar with asthma will know that an episode is about to happen.

■ Other signs

- Itchy chin or neck
- “Clipped” speech (very short, choppy sentences)

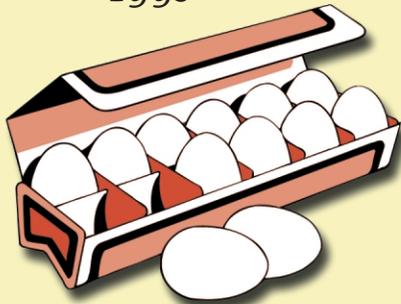
Adapted from: Managing Asthma: A Guide for Schools, National Heart, Lung and Blood Institute (NHLBI), National Institutes of Health, US Department of Health and Human Services and the Fund for the Improvement and Reform of Schools and Teaching, Office of Educational Research and Improvement (OERI), US Department of Education, September 1991. NIH Publication No. 91-2650



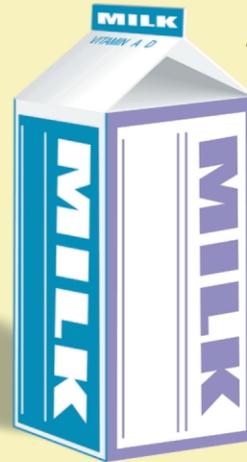
Major Causes of Food Allergies

these eight foods account for
90% of all allergic reactions

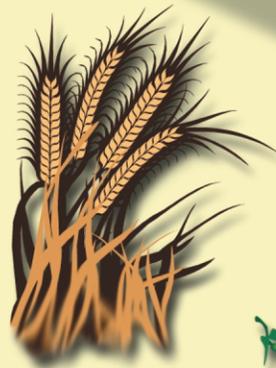
Eggs



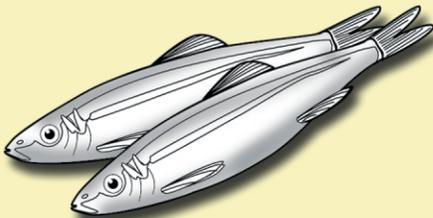
Milk



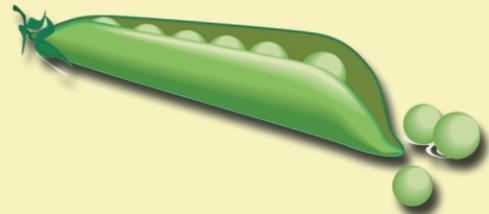
Wheat



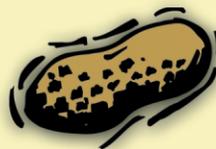
Fish



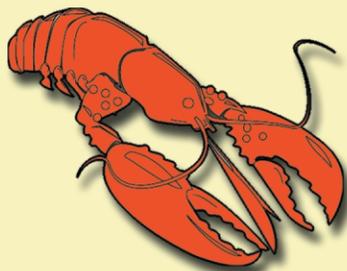
Soy



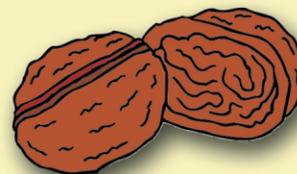
Peanuts*



Shellfish



Tree Nuts
(Walnuts, Pecans)



**Peanuts are the leading cause of severe allergic reactions.*

From The Food Allergy Network

Family

When a student has asthma, it is a concern for his/her entire family. Therefore, it is helpful to have an understanding of what a family experiences when dealing with a chronic health condition. School staff can help provide support to families in managing a student with asthma. Staff can also assist families by providing educational resources and materials about asthma and organizing training workshops on asthma for the school community. Staff have the opportunity to educate families on asthma triggers in the home and can help to empower families to take charge and create a healthy environment. In Connecticut, there are a number of local community-based organizations, for example, the American Lung Association of Connecticut, that can help facilitate this.



Communication

Effective communication plays a major role in managing a student with asthma and can help to ensure that health needs are met in a timely fashion. Open communication with the family of a student with asthma and the primary care provider is essential for successful asthma management. The Asthma Action Plan can help facilitate a relationship with the school and physician.

(Refer to the “Appendix” for a sample Asthma Action Plan).

Home Environment

Since people with asthma, particularly children, are extremely sensitive to their environment, conducting a home assessment to identify triggers is essential. There are resources available to families. Refer to the “How Healthy is the Air in Your Home?” brochure for an example of materials that can be provided to families.

Additionally, children should be protected from secondhand smoke in the home. Since children are still developing, exposure to the poisons in secondhand smoke put them at greater risk. Children may experience severe health problems, including asthma, decreased lung function, and lower respiratory tract infections. Therefore, it is important to take all the necessary steps to ensure a smoke-free home. If any household members wish to quit smoking, there is support for them through the Connecticut QuitLine, a 24-hour, toll-free confidential service that offers counseling, educational materials, and referrals to local cessation programs. The Connecticut QuitLine telephone number is 1-866-END-HABIT.

(Refer to the end of this section for additional information).

Things Parents Can Do To Help Their School Raise Awareness About Asthma

- ✓ Volunteer to help your school provide in-service programs and educational resources on asthma and other health-related issues.
- ✓ Call the American Lung Association of Connecticut at 860-289-5401 or 1-800-LUNG-USA for information about their Speakers' Bureau.
- ✓ Encourage the PTA or PTO to get involved in asthma-related initiatives.
- ✓ Sponsor asthma-related events or fairs at the school to help raise awareness for the community.
- ✓ Help form or participate in the Health and Safety Team and/or Coordinated School Health teams involving school staff, parents, and the community. Your school may already have teams, including nutrition and air quality, so be sure to find out about them.
- ✓ Support, sponsor, and/or participate in support groups for children and/or families with asthma.

Questions and Answers About Asthma Care at School

Q: How can I help my child be prepared for asthma at school?

A: Begin each school year talking with your child's school nurse, primary classroom teacher, PE teacher, and school principal. Find out who the school nurse is if you don't already know and talk often with him or her. Provide updates on your child's asthma at least every 6 months and be sure to provide a written Asthma Action Plan to your school nurse.

Include written consent for the school nurse to administer medication(s) and to communicate with your child's health care provider. Help all staff understand asthma and explain your child's unique asthma needs such as:



- Steps to take when symptoms occur, or get worse;
- Health care provider updates to the school when changes in medicines or peak flow zones are made;
- Classroom adaptation such as no classroom pets, or easy access to an inhaler on field trips;
- Access to current quick relief medicines at school, even if symptoms occur infrequently;
- Keeping a peak flow meter at school if your child uses one to tell when it's time to use an inhaler;
- Know that your child may have more asthma trouble during certain parts of the year because of cold weather (in January), pollen (in April), or colds (back to school germs in September).

Q: What do I need to do if my child/teen needs to take asthma medicine at school?

A: Have your child seen by his or her health care provider during the summer, before school starts in the fall. This office visit will give you the chance to talk about any changes needed in the Asthma Action Plan and to have your provider complete an authorization form for medication at school*. Be sure to get a prescription for medication that needs to be given at school as well as one for home so the medication for school is properly labeled and ready to go to school when your child starts.

Sometimes medicine schedules can be changed so doses are given before and right after school, avoiding scheduled doses at school altogether. That is not always possible, but check with your child's health care provider.



Q: What do I do if I feel that my child's needs are not being met at school?

A: Most often school problems are due to miscommunication. Start with your child's health care provider to make sure you are clear about what your child's management needs are. Talk with your school nurse about your concerns related to taking medication. If it's a classroom allergen, talk directly with the teacher. If the issue is complex and not easily solved, contact the school principal or counselor to request a staff meeting with involved staff to discuss your child's needs.

Keep a written record of the steps you have taken, including names and dates of contacts and concerns discussed. This record will help in further discussions with other school personnel.

If you have questions or concerns about your child's or teen's asthma or care at school, call the school nurse.

School nurse _____

Phone number at school () _____

**The forms and policies vary by school districts.*

Source: Asthma Management in Education Settings, American Lung Association of Washington, 2001.



How do I know if my child should go to school today?

My child may attend school if:

- ☺ Peak flow is in the Green Zone (if applicable, or if your doctor recommends the use of a peak flow meter);
- ☺ Child has a stuffy nose, but no wheezing;
- ☺ Child has wheezing which goes away after taking medication;
- ☺ Child is able to perform usual activities (getting dressed, eating) without using extra effort to breathe.

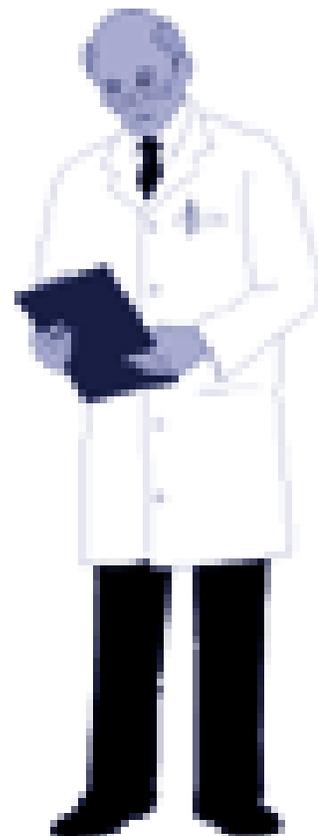
My child should not attend school if:

- ☹ Peak flow measurement is below 75% of personal best (if applicable, or if your doctor recommends the use of a peak flow meter);
- ☹ Wheezing or coughing continues after treatment;
- ☹ Child has trouble breathing or is breathing fast;
- ☹ Child has a fever over 100 degrees;
- ☹ Child is too weak or tired to take part in normal activities (dressing self, eating).

Source: Illinois Department of Human Services

How Schools, Parents, and Health Care Providers Can Work Together for Better Asthma Management

1. Parents of children with asthma should talk to their health care providers about an Asthma Action Plan for school either before school begins, or as soon as the child is diagnosed with asthma.
2. Parents of children with asthma should meet with the school nurse and teacher to discuss the Asthma Action Plan, the needs of the child, and the school's procedures for administering medications and handling emergencies in school.
3. Schools should play a role in organizing training sessions on asthma for students, parents, and staff. They can collaborate with local asthma groups (e.g., the American Lung Association of Connecticut or other community-based organizations) to provide asthma education that is both convenient and low-cost.
4. Schools should communicate with parents and health care providers regarding students' asthma. Both parents and health care providers should be notified if a student's asthma is getting worse. Using the student's Asthma Action Plan can help facilitate the communication.
5. Schools should notify parents of all field trips in advance, so that special arrangements can be made, if necessary.
6. Health care providers should complete an Asthma Action Plan and parents should authorize communication between the school nurse and the health care provider.



Asthma and School: Three Steps Help You Take Charge

Every parent of a child with asthma soon faces a question: *How can I help my child control asthma at school?*

According to the American Lung Association, asthma leads to 10 million missed school days every year. That makes asthma the No. 1 cause of school absenteeism due to chronic illness. You can help keep your child from adding to that statistic. Your goal is to create a feedback system to detect how well your child is managing asthma during the school day.

Set up an asthma management team

If your child has asthma, your doctor will help you develop a management plan. For many children, the plan involves taking medication and avoiding substances and activities that trigger asthma episodes. To get the most out of your plan, share it with all adults who regularly interact with your child:

- Homeroom teachers
- Specialists, such as music, art and physical education teachers
- Classroom aides
- School nurses
- Counselors
- Coaches
- The school principal and other administrators

Along with your child, these people are core members of your asthma management team.

Meet with members of the team early in the school year. Describe any medications that your child takes, how those medications are administered, and possible side effects. Explain how your child can manage an asthma episode. Finally, provide a phone number where you can be reached during the school day.

Your child might feel self-conscious about taking medication at school. Make arrangements for your child to take medication with minimal disruption. Teachers can help by allowing children to carry and use a metered-dose inhaler (MDI) to administer asthma medication.* In short, discourage staff members from seeing asthma as something that sets your child apart. Encourage them to integrate treatment into the usual school day.

Flexibility is also key in physical education. “Sometimes the old school of thought was: ‘If you don’t run a mile in 6 minutes in my class, you fail,’” says Dr. Martin I. Sachs, a specialist in

pediatric allergy and immunology at Mayo Clinic, Rochester, Minn. “That standard of performance should be modernized to emphasizing exercises that are more realistic and lead to lifelong activity, such as walking, cycling and using exercise machines. These forms of exercise are just as effective in promoting better physical conditioning and are better tolerated by people with asthma.” Ask your physician to write a letter to your child’s physical education teacher. This letter can explain your child’s symptoms and plan for managing asthma. It also can include guidelines for appropriate levels of exercise.

**These policies vary by school district.*

Step

2

Monitor your child’s behavior

Ensure that your child is following the plan. This is particularly important when it comes to taking medication. You can:

- **Monitor your child’s learning.** Ask teachers to contact you if your child has difficulty paying attention or following instructions, and follow up promptly on any decline in grades. Asthma symptoms or medications might be involved.
- **Monitor absenteeism.** Encourage your child to attend school as much as is reasonable. Even with mild asthma symptoms, your child might be able to benefit from being at school. If necessary, arrange for tutoring or help with homework when your child misses school.
- **Monitor the school environment.** Check classrooms for adequate ventilation. Look for environments that are as free as possible of dust, mold and odors from chemicals such as glues and paints. Hamsters, guinea pigs and other animals in a classroom also might pose a problem. In some cases, it may be wise to change your child’s classroom.

Step

3

Assess the results

At this point, your asthma team is working for you during the school day, and you are tracking your child’s behavior. Now sit back and assess the results. Observe your child’s symptoms. If you notice any change, consult your physician. And if your child’s treatment plan changes, inform your team.

These three steps form a continuous cycle: Plan. Monitor. Assess. Then plan again, monitor, and assess the new results. When the cycle becomes automatic, your child is taking charge of asthma — and moving toward maximum success at school.

Books About Asthma for Adults/Parents

The following titles listed are for parents and/or more mature readers.

All About Asthma: Stop Suffering and Start Living

by Irwin J. Polk, M.D.

Focuses on patient education. Discusses the lungs and how they work. Describes the role of allergies in asthma, drug choices and breathing exercises. Includes a section on asthma in children.



American Medical Association Essential Guide to Asthma

Focuses on finding and maintaining an active treatment plan. Also discusses asthma triggers, choosing a doctor and handling asthma emergencies.

Ask the Doctor: Asthma

by Vincent Friedewald, M.D.

Provides a wide range of asthma-related information in small paragraphs. Follows up each section with questions that help the reader apply information to their own lives.

Asthma: The Complete Guide to Self-Management of Asthma and Allergies for Patients and Their Families

by Allan M. Weinstein, M.D.

Focuses on understanding asthma and its triggers. Includes helpful samples of management programs. Recommended by Nancy Sander, the founder of Mothers of Asthmatics.

Childhood Asthma: What It Is and What You Can Do

by Dr. Neil Buchman and Dr. Peter Cooper

Covers the basics of asthma, its causes, and diagnosis. Describes asthma, from mild to severe. Has a good section on explaining asthma to children. Very easy to read.

Children with Asthma: A Manual for Parents

by Thomas F. Plaut, MD

Provides excellent advice for parents emphasizing their important role in asthma management. It teaches the basics of asthma, how medications work and when to call for help. The manual includes sections on infants, children, and teenagers.

Family Guide To Asthma And Allergies: How You and Your Children Can Breathe Easier

The American Lung Association Asthma Advisory Group with Norman H. Edelman, M.D.

Focuses on the family's role in caring for children with asthma. Includes what to tell your child's school, the benefits of exercise, taking trips, and trigger-proofing your home. Lists asthma camps and resources. Very useful.

A Parent's Guide to Asthma: How You Can Help Your Child Control Asthma at Home, School and Play

by Nancy Sander, founder of the National Allergy and Asthma Network Mothers of Asthmatics.

Describes Sander's daughter's history of allergies and severe asthma.

Covers asthma triggers, finding a good doctor, understanding asthma treatment and using asthma tools. Explains how to manage asthma in many situations.

Your Child: Asthma

by Erika Harvey

Covers the causes and treatments of childhood asthma by the former editor of *Here's Health* and *Parents*. Discusses how to manage asthma from babyhood through late teens. Includes ways to help children handle their feelings about asthma.

Asthma Resources

The following organizations and websites are a sample of the national and local resources available on asthma, including information specifically on schools. This list is not an all-inclusive list.

CONNECTICUT

Connecticut Department of Public Health
(860) 509-7751
www.dph.state.ct.us

American Lung Association of Connecticut
(860) 289-5401 or 1-800 LUNG-USA
www.alact.org

The Connecticut School Indoor Environment Resource Team
(860) 549-1877

NATIONAL

Allergy and Asthma Network/Mothers of Asthmatics, Inc.
1-800-878-4403 or 703-641-9595
www.aanma.org

American Academy of Allergy, Asthma, and Immunology
1-800-822-2762
www.aaaai.org

American Academy of Pediatrics
1-800-433-9016 or 847-228-5005
www.aap.org

American College of Allergy, Asthma, and Immunology
1-800-842-7777
www.allergy.mcg.edu

Asthma and Allergy Foundation of America, New England Chapter
1-877-2-ASTHMA
www.asthmaandallergies.org

Centers for Disease Control National Center for Environmental Health

www.cdc.gov/nceh/asthma

Food Allergy Network

1-800-929-4040

www.foodallergy.org

Kids On the Block

1-800-368-KIDS or 410-290-9095

www.kotb.com

National Association of School Nurses

1-877-627-6476

www.nasn.org

The National Center for Education in Maternal and Child Health

www.ncemch.org

National Heart, Lung, and Blood Institute

National Asthma Education and Prevention Program

(301) 592-8573

www.nhlbi.nih.gov

National Jewish Medical and Research Center (Lung Line)

1-800-222-5864

www.njc.org

National Parent Teacher Association

1-800-307-4PTA

www.pta.org

National Poison Prevention Hotline

1-800-222-1222

U.S. Department of Health and Human Services

1-877-696-6775

www.aspe.hhs.gov/sp/asthma

U.S. Environmental Protection Agency

Indoor Air Quality Information Clearinghouse

1-800-438-4318

www.epa.gov/iaq

Other Useful Asthma Websites

www.asthmaandschools.org Includes information about asthma-related resources for school personnel working with grades K to 12. Includes simple, searchable database links to educational materials, medical information, websites, and other resources useful for anyone who works in a school serving children and youth.

www.asthmaaustralia.org.au Provides asthma education, information, research, community advocacy, and support to people with asthma and their families.

www.asthmainamerica.com Provides national and regional survey data and statistics on asthma. Lists general information on asthma, asthma management, asthma guidelines, and other resources.

www.asthmamoms.com Provides extensive lists of links to asthma-related information for families, including resources about asthma triggers, medications, legislation, medical literature, statistics, initiatives, and camps. Includes information in English and Spanish, from AsthmaMoms, a network of concerned parents of children with asthma.

www.mayoclinic.com Their Allergy and Asthma Center provides patient education fact sheets about asthma as well as other resource information.

www.ncemch.org/refdes/asthma.html Offers a selection of recent, high-quality resources and tools for staying abreast of new developments on asthma in children and for conducting research. Contains citations for journal articles and other print resources and links to Web sites, electronic publications, databases, and discussion groups.

www.schoolasthmaallergy.com Provides current information, resources, and tools on asthma for school nurses.

www.ifas.ufl.edu/~schoolipm/ Provides information and resources for parents, school administrators, school staff, and custodians on integrated pest management in schools.

Glossary of Terms

Allergen - A foreign substance that leads to an allergic reaction. Examples are dust, molds and pollens.

Allergic Reaction - An acquired abnormal immune response to a substance (allergen) that does not normally cause a reaction.

Anti-inflammatory Medication - A medicine that reduces the symptoms and signs of inflammation in the lungs by reducing the swelling of the airways. It helps control asthma over the long term. Corticosteroids are an example of anti-inflammatory medications.

Asthma - A chronic inflammatory lung disease that affects the airways in the lungs causing difficulty with breathing. Asthma attacks are triggered by allergens, infections, exercise, cold air and other factors.

Asthma Management Plan (also called an Asthma Action Plan) - A written document developed by the physician in conjunction with the person with asthma and his/her family that outlines exactly what the person with asthma needs to do depending on how they are feeling.

Bronchodilator Medications - A group of drugs that widen the airways in the lungs, providing quick relief. These are known as “rescue” medications.

Control Medications - These medications work over the long-term to reduce inflammation of the airways associated with asthma, thus reducing the risk of an asthma attack.

Corticosteroid drugs - A group of anti-inflammatory drugs that reduce the swelling of the airways.

Dander - Small scales from animal skin. This is a common allergen.

Immune System - The system within the body that identifies harmful foreign substances and works to get rid of them before they make you sick.

Inflammation - Redness and swelling in a body tissue such as the nose, lung or skin due to chemical or physical injury, infection, or exposure to an allergen.

Inhaled Steroids - Medicines that prevent the occurrence of asthma symptoms if taken regularly at adequate doses. The medicine is taken via inhaler only.

Inhaler - A device for administering medications by inhalation.

Nebulizer - A machine that pumps air through a liquid medicine making the medicine bubble until a fine mist is formed that is breathed in. It is usually used in the hospital or at the doctor's office.

Peak Flow Meter - A small tube-like hand-held device used to measure the speed at which a person can push air out of their lungs. Monitoring peak flow can tell how well asthma is being controlled even before symptoms appear.

Relief (Rescue) Medications - Short-term medications that provide immediate relief to the airways during an asthma attack.

Respiratory System - The group of organs responsible for breathing. This includes the nose, throat, airways, and the lungs.

Spacer - A device that attaches to an inhaler that helps direct the medication into the lungs. These are useful for very young children who have difficulty getting adequate medicine into their lungs with an inhaler alone.

Symptoms - Physical changes or feelings that show a disease or condition exists. For asthma these may be coughing, wheezing, breathing difficulty, or a tightness in the chest.

Triggers - Activities, conditions, or substances that cause the airways to react and asthma symptoms to occur. Some examples of possible asthma triggers are dust mites, mold, changes in temperature, tobacco smoke, and furry pets. Triggers are different for each person.

SELF-ASSESSMENT OF YOUR SCHOOL ASTHMA PROGRAM

From the American Lung Association/Kaiser Permanente National Conference 11/00

How completely do you implement each ALA/KP recommendation in your school(s)?

| <u>Recommendation</u> (description) (approximate percentage) | <u>Assessment</u> | | | | |
|--|----------------------------------|---------------------------|------------------------|----------------------|------------------------------------|
| | None/ nearly none <10% | Very little 10-29% | Somewhat 30-69% | Mostly 70-89% | Fully/ nearly fully >90% |

Key Element 1: *Provide appropriate school health services*

Important components of this element:

| | | | | | | | | | |
|--|---|-------|---|-------|---|-------|---|-------|---|
| a) Provide a full time RN all day every day/each school | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |
| b) Identify and track all students with asthma | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |
| c) Use an Asthma Action Plan for all students with asthma including emergency protocols and peak flow monitoring, as indicated | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |
| d) Assure immediate access to medications as prescribed by MD & approved by parents (self-carry as appropriate) | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |
| e) Use standard emergency protocols for students with respiratory distress if they don't have their own plan | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |
| f) Assure access to a consulting physician for each school | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |
| g) Provide intensive case management for students with asthma who are absent 10 or more days per year | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |

Key Element 2: *Provide asthma Education and Awareness Programs*

Important components of this element:

| | | | | | | | | | |
|--|---|-------|---|-------|---|-------|---|-------|---|
| a) Educate school staff, including physical education teachers, coaches, bus drivers, etc. | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |
| b) Educate students with asthma | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |
| c) Educate parents | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |
| d) Provide asthma awareness education to all students | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |

Recommendation**Assessment**

(description)

None/
nearly none

Very little

Somewhat

Mostly

Fully/
nearly fully

(approximate percentage)

<10%

10-29%

30-69%

70-89%

>90%

Key Element 3: *Provide a healthy school environment***Important components of this element:**

- | | | | | | | | | | |
|--|---|-------|---|-------|---|-------|---|-------|---|
| a) Assure smoke-free buildings and grounds during school and all school activities including bathrooms and buses | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |
| b) Proactively maintain good IAQ | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |
| c) Use integrated pest management techniques to control pests | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |
| d) Provide smoking prevention/cessation programs for students and staff | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |

Key Element 4: *Provide students with asthma-appropriate daily physical education or physical activity opportunities***Important components of this element:**

- | | | | | | | | | | |
|---|---|-------|---|-------|---|-------|---|-------|---|
| a) Encourage full participation when students are well | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |
| b) Assure ready access to pre-medication as prescribed | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |
| c) Provide modified activity as indicated by student's Asthma Action Plan | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |
| d) Provide an IEP/504 Plan, if needed | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |

Key Element 5: *Use a coordinated community approach to planning and implementation of school asthma management***Important components of this element:**

- | | | | | | | | | | |
|--|---|-------|---|-------|---|-------|---|-------|---|
| a) Involve parents and students | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |
| b) Involve community healthcare providers and clinicians | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |
| c) Involve community asthma programs | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |
| d) Involve school and community social support systems | 1 | ..... | 2 | ..... | 3 | ..... | 4 | ..... | 5 |

Key Element 6:**Advocate for policy, regulations, and legislative changes to assure asthma-friendly schools**

1 2 3 4 5



Educational Resources Information Center

ERIC Clearinghouse on Disabilities and Gifted Education

1110 North Globe Road, Arlington, Virginia 22201-5704
 1-800-328-0272 ericec@cec.sped.org http://ericec.org

Author: Kelly Henderson

March 2001

An Overview of ADA, IDEA, and Section 504: Update 2001

THIS DIGEST SUPERSEDES ERIC EC DIGEST #E537
 ERIC EC Digest #E606

| Americans With Disabilities Act of 1990 (ADA) | Individuals with Disabilities Education Act (IDEA), amended in 1997 | Section 504 of The Rehabilitation Act of 1973 |
|---|---|--|
| Type/Purpose | | |
| A civil rights law to prohibit discrimination solely on the basis of disability in employment, public services, and accommodations. | An education act to provide federal financial assistance to state and local education agencies to guarantee special education and related services to eligible children with disabilities. | A civil rights law to prohibit discrimination on the basis of disability in programs and activities, public and private, that receive federal financial assistance. |
| Who Is Eligible? | | |
| Any individual with a disability who (1) has a physical or mental impairment that substantially limits one or more life activities; or (2) has a record of such an impairment; or (3) is regarded as having such an impairment. Further, the person must be qualified for the program, service or job. | Children and youth aged 3-21 who are determined through an individualized evaluation and by a multidisciplinary team (including the parent) to be eligible in one or more of 13 categories and who need special education and related services. The categories are autism, deaf-blindness, deafness, emotional disturbance, hearing impairment, mental retardation, multiple disabilities, orthopedic impairment, other health impairment, specific learning disability, speech or language impairment, traumatic brain injury, and visual impairment including blindness. Children aged 3 through 9 experiencing developmental delays may also be eligible. Infants and toddlers from birth through age 2 may be eligible for early intervention services, delivered in accordance with an individualized family service plan. | Any person who (1) has a physical or mental impairment that substantially limits one or more major life activities, (2) has a record of such an impairment, or (3) is regarded as having such an impairment. Major life activities include caring for oneself, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working. The person must be qualified for the services or job; in the case of school services, the person must be of an age when nondisabled peers are typically served or be eligible under IDEA. |
| Responsibility To Provide a Free, Appropriate Public Education (FAPE)? | | |
| Not directly. However, ADA provides additional protection in combination with actions brought under Section 504 and IDEA. ADA protections apply to nonsectarian private schools, but not to organizations or entities controlled by religious organizations. Reasonable accommodations are required for eligible students with a disability to perform essential functions of the job. This applies to any part of the special education program that may be community-based and involve job training/ placement. Although not required, an IEP under IDEA will fulfill requirements of Title II of the ADA for an appropriate education for a student with disabilities. | Yes. A FAPE is defined to mean special education and related services that are provided at no charge to parents, meet other state educational standards, and are consistent with an individualized educational program (IEP). Special education means specially designed instruction, at no cost to the parents, to meet the unique needs of the child with a disability. Related services are those required to assist a child to benefit from special education, including speech-language pathology, physical and occupational therapy, and others. A team of professionals and parents develop and review at least annually, an IEP for each child with a disability. IDEA requires certain content in the IEP. | Yes. An appropriate education means an education comparable to that provided to students without disabilities. This may be regular or special education. Students can receive related services under Section 504 even if they are not provided any special education. These are to be provided at no additional cost to the child and his or her parents. Section 504 requires provision of educational and related aids and services that are designed to meet the individual educational needs of the child. The individualized educational program of IDEA may be used to meet the Section 504 requirement. |

| Funding To Implement Requirements? | | |
|--|--|--|
| No, but limited tax credits may be available for removing architectural or transportation barriers. Also, many federal agencies provide grants to public and private institutions to support training and technical assistance. | Yes. IDEA provides federal funds under Parts B and C to assist state and local educational agencies in meeting IDEA requirements to serve infants, toddlers, children, and youth with disabilities. | No. State and local jurisdictions have responsibility. IDEA funds may not be used to serve children found eligible only under Section 504. |
| Procedural Safeguards/Due Process | | |
| The ADA does not specify procedural safeguards related to special education; it does detail the administrative requirements, complaint procedures, and consequences for noncompliance related to both services and employment. The ADA also does not delineate specific due process procedures. People with disabilities have the same remedies that are available under Title VII of the Civil Rights Act of 1964, as amended by the Civil Rights Act of 1991. Thus, individuals who are discriminated against may file a complaint with the relevant federal agency or sue in federal court. Enforcement agencies encourage informal mediation and voluntary compliance. | IDEA provides for procedural safeguards and due process rights to parents in the identification, evaluation and educational placement of their child. Prior written notice of procedural safeguards and of proposals or refusals to initiate or change identification, evaluation, or placement must be provided to parents. IDEA delineates the required components of these notices. Disputes may be resolved through mediation, impartial due process hearings, appeal of hearing decisions, and/or civil action. | Section 504 requires notice to parents regarding identification, evaluation, placement, and before a significant change in placement. Written notice is recommended. Following IDEA procedural safeguards is one way to meet Section 504 mandates. Local education agencies are required to provide impartial hearings for parents who disagree with the identification, evaluation, or placement of a student. Parents must have an opportunity to participate in the hearing process and to be represented by counsel. Beyond this, due process is left to the discretion of local districts. It is recommended that they develop policy guidance and procedures. |
| Evaluation/Placement Procedures | | |
| The ADA does not specify evaluation and placement procedures; it does specify provision of reasonable accommodations for eligible students across educational activities and settings. Reasonable accommodations may include, but are not limited to, redesigning equipment, assigning aides, providing written communication in alternative formats, modifying tests, reassigning services to accessible locations, altering existing facilities, and building new facilities. | With parental consent, an individualized evaluation must be conducted using a variety of technically sound, unbiased assessment tools. Based on the results, a team of professionals (including the parent of the child) determines eligibility for special education. Reevaluations are conducted at least every 3 years. Results are used to develop an IEP that specifies the special education, related services, and supplemental aids and services to be provided to address the child's goals. Placement in the least restrictive environment (LRE) is selected from a continuum of alternative placements, based on the child's IEP, and reviewed at least annually. IEPs must be reviewed at least annually to see whether annual goals are being met. IDEA contains specific provisions about IEP team composition, parent participation, IEP content, and consideration of special factors. | Section 504 provides for a placement evaluation that must involve multiple assessment tools tailored to assess specific areas of educational need. Placement decisions must be made by a team of persons familiar with the student who understand the evaluation information and placement options. Students with disabilities may be placed in a separate class or facility only if they cannot be educated satisfactorily in the regular education setting with the use of supplementary aids and services. Significant changes to placement must be preceded by an evaluation. Section 504 provides for periodic reevaluation. Parental consent is not required for evaluation or placement. |

Telephone Information Lines

The Americans with Disabilities Act (ADA) information line, 1-800-514-0301 or 1-800-514-0383 (TDD).
U.S. Office of Civil Rights, 1-800-421-3481.

Websites

Americans with Disabilities Act <http://www.usdoj.gov/crt/ada/adahom1.html>
Section 504 of the Rehabilitation Act <http://www.ed.gov/offices/OCR/disability.html>
Individuals with Disabilities Education Act <http://www.ideapractices.org/lawandregs.html>

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